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OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOL. XVII

APRIL 8, 1920

No. 16

THE DENTAL SCHOOL

BOSTON, MASSACHUSETTS

1919-20



CAMBRIDGE, MASSACHUSETTS
PUBLISHED BY THE UNIVERSITY

ANNOUNCEMENT
OF THE
DENTAL SCHOOL
OF
HARVARD UNIVERSITY

1919—20



CAMBRIDGE
PUBLISHED BY THE UNIVERSITY
1920

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DENTAL SCHOOL CALENDAR

1919.

- Sept. 10, Wednesday.* Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 22, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 13, Monday.* Columbus Day : a holiday.
- Nov. 27, Thursday.* Thanksgiving Day : a holiday.

RECESS FROM DEC. 23, 1919, TO JAN. 2, 1920, INCLUSIVE.

1920.

- Jan. 1, Thursday.* New Year's Day : a holiday.
- Jan. 31, Saturday.* Payment of the second instalment of the tuition-fee is required on or before this date.
- Feb. 2, Monday.* **Second half-year begins.**
- Feb. 23, Monday.* Washington's Birthday : a holiday.

RECESS FROM APRIL 18 TO APRIL 24, INCLUSIVE.

- May 1, Saturday.* Last day for receiving applications of candidates for the degree of D.M.D. in June, 1920.
- May 31, Monday.* Memorial Day : a holiday.
- June 21-26, Monday to Saturday.* Examinations for admission — conducted by the College Entrance Examination Board.
- June 23, Wednesday.* Alumni Day.
- June 24, Thursday.* **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT TO
SEPTEMBER 21, INCLUSIVE.

- Sept. 27, Monday.* **Academic Year begins.** Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 12, Tuesday.* Columbus Day : a holiday.
- Nov. 25, Thursday.* Thanksgiving Day : a holiday.

THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

This Board is commonly known as the CORPORATION.

PRESIDENT

ABBOTT LAWRENCE LOWELL, A.B., LL.B., LL.D., PH.D.
17 Quincy St., Cambridge

FELLOWS

HENRY PICKERING WALCOTT, A.B., M.D., LL.D.
11 Waterhouse St., Cambridge

*HENRY LEE HIGGINSON, A.M., LL.D.

THOMAS NELSON PERKINS, A.B., LL.B. 60 State St., Boston

WILLIAM LAWRENCE, A.B., D.D., LL.D., D.C.L.
122 Commonwealth Ave., Boston

JOHN FARWELL MOORS, A.M., LL.D. 32 Mt. Vernon St., Boston

TREASURER

CHARLES FRANCIS ADAMS, A.B., LL.B. 50 State St., Boston

DEPUTY TREASURER

GORHAM BROOKS, A.B. 60 State St., Boston

SECRETARIES TO THE CORPORATION

FRANCIS WELLES HUNNEWELL, A.B., LL.B.
5 University Hall, Cambridge

FREDERICK LEWIS ALLEN, A.M. 5 University Hall, Cambridge

* Died, November 14, 1919.

THE BOARD OF OVERSEERS

The PRESIDENT and TREASURER of the University, *ex officio*, and the following persons by election: —

1920*

- EDGAR CONWAY FELTON, A.B. Haverford, Pa.
WILLIAM COWPER BOYDEN, A.B., LL.B. 134 So. La Salle St., Chicago, Ill.
THOMAS WILLIAMS SLOCUM, A.B. 11 Thomas St., New York, N.Y.
WILLIAM CAMERON FORBES, A.B., LL.D. 199 Washington St., Boston
JOHN WHITE HALLOWELL, A.B. New Interior Building, Washington, D. C.

1921

- ROBERT GRANT, PH.D., LL.B., *President*, 211 Bay State Road, Boston
JOSEPH LEE, A.M., LL.B. 101 Tremont St., Boston
WILLIAM SYDNEY THAYER, A.B., M.D., LL.D., F.R.C.P. 406 Cathedral St., Baltimore, Md.
ROBERT FREDERICK HERRICK, A.B., LL.B. 84 State St., Boston
DWIGHT FILLEY DAVIS, A.B., LL.B. 16 Portland Place, St. Louis, Mo.

1922

- WILLIAM THOMAS, A.B., LL.B. 310 Sansome St., San Francisco, Cal.
HOWARD ELLIOTT, C.E. 34 Nassau St., New York, N. Y.
JOHN PIERPONT MORGAN, A.B., LL.D. 23 Wall St., New York, N.Y.
ELIOT WADSWORTH, A.B. 382 Marlborough St., Boston
FRANCIS LEE HIGGINSON, JR., A.B. 44 State St., Boston

* The term expires, in each case, on Commencement Day of the year indicated.

1923

FRANCIS JOSEPH SWAYZE, A.M., LL.D. 765 High St., Newark, N. J.
 LEONARD WOOD, M.D., LL.D., D.C.L., M.S.D.

230 East Ohio St., Chicago, Ill.

ARTHUR WOODS, A.M.

Sterlington, N. Y.

JEROME DAVIS GREENE, A.M. 43 Exchange Place, New York, N. Y.

FRANKLIN DELANO ROOSEVELT, A.B.

Navy Department, Washington, D. C.

1924

HENRY CABOT LODGE, PH.D., LL.B., LL.D. Washington, D. C.

GEORGE WIGGLESWORTH, A.M., LL.B. 53 State St., Boston

FRANCIS RANDALL APPLETON, A.B., LL.B.

26 East 37th St., New York, N. Y.

IRA NELSON HOLLIS, A.M., L.H.D., S.D.

Worcester Polytechnic Institute, Worcester

PAUL REVERE FROTHINGHAM, A.M., D.D.

294 Beacon St., Boston

1925

EDWARD HICKLING BRADFORD, A.M., M.D.

133 Newbury St., Boston

OWEN WISTER, A.M., LL.B., LL.D., L.H.D.

1004 West End Trust Building, Philadelphia, Pa.

JULIAN WILLIAM MACK, LL.B.

The Woolworth Building, New York, N. Y.

THOMAS WILLIAM LAMONT, A.B. 23 Wall St., New York, N. Y.

ELLERY SEDGWICK, A.B. 14 Walnut St., Boston

SECRETARY OF THE BOARD OF OVERSEERS

WINTHROP HOWLAND WADE, A.M., LL.B. 99 State St., Boston

DEPARTMENTS OF THE UNIVERSITY

The University comprehends the following departments :—

HARVARD COLLEGE,
GRADUATE SCHOOL OF ARTS AND SCIENCES,
SPECIAL STUDENTS,
ENGINEERING SCHOOL,
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION,
SCHOOL OF ARCHITECTURE,
SCHOOL OF LANDSCAPE ARCHITECTURE,
BUSSEY INSTITUTION,
DIVINITY SCHOOL,
LAW SCHOOL,
MEDICAL SCHOOL,
DENTAL SCHOOL,
GRADUATE COURSES IN MEDICINE,
ARNOLD ARBORETUM,
UNIVERSITY LIBRARY,
MUSEUM OF COMPARATIVE ZOÖLOGY,
PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND
ETHNOLOGY,
UNIVERSITY MUSEUM,
BOTANIC GARDENS,
GRAY HERBARIUM,
ASTRONOMICAL OBSERVATORY.

 Students in regular standing in any one department of the University are admitted free to the instruction and the examinations given in any other department, with the exception of exercises carried on in the special laboratories. But no student paying less than the full fee in his own department is admitted to exercises given in any other department, except upon payment of suitable fees therefor, and with the knowledge and consent of the Deans both of his department and of the department in which the additional instruction is given.

ADMINISTRATIVE OFFICERS

THE UNIVERSITY

President: ABBOTT LAWRENCE LOWELL, A.B., LL.B., LL.D., PH.D.

Office, 5 University Hall, Cambridge.

Treasurer: CHARLES FRANCIS ADAMS, A.B., LL.B.

Deputy Treasurer: GORHAM BROOKS, A.B.

The office of the Corporation (and of the Treasurer) is at 50 State Street, Boston. Office hours, 9 A.M. to 5 P.M.; Saturday, 9 A.M. to 1 P.M.

Secretary to the Corporation: FRANCIS WELLES HUNNEWELL, 2d, A.B., LL.B.

Office, 5 University Hall, Cambridge.

Comptroller: FRANCIS WELLES HUNNEWELL, 2d, A.B., LL.B.

Office, 5 University Hall, Cambridge.

Assistant Comptroller: JOHN LEWIS TAYLOR.

Office, 14 Quincy St., Cambridge. Office hours, 9 A.M. to 1 P.M.

Bursar: CHARLES FRANK MASON, A.B.

Office, 14 Quincy St., Cambridge. Office hours, 9 A.M. to 1 P.M.

Inspector of Grounds and Buildings: WALTER SAFFORD BURKE.

Office, Massachusetts Hall, Cambridge. Office hours, daily, except Saturday, 9 A.M. to 1 P.M., 4 to 4.30 P.M.; Saturday, 9 A.M. to 12.30 P.M.

Professor of Hygiene: ROGER IRVING LEE, A.B., M.D.

THE FACULTY OF ARTS AND SCIENCES

The Offices of this Faculty and of the Departments under its charge at Nos. 2, 4, 10, 19, 20, 23 and 24, University Hall, Cambridge, are open on week-days from 9 A.M. to 1 P.M. Nos. 2, 10, 19, 20, 23, and 24 are also open on week-days, except Saturdays, from 2 to 5 P.M.

Dean of the Faculty of Arts and Sciences: LE BARON RUSSELL BRIGGS, A.M., LL.D., LITT.D.

Office, 10 University Hall. Office hours, Monday, 10 A.M. to 1 P.M.

Dean of the Graduate School of Arts and Sciences: CHARLES HOMER HASKINS, PH.D., LITT.D., LL.D.

Office, 23 University Hall. Office hours, Monday, Wednesday, Friday, 12 M. to 1.15 P.M.; Tuesday, Thursday, 11 to 12 M.

Dean of Harvard College: HENRY AARON YEOMANS, A.M., LL.B.

Office, 4 University Hall. Office hours, Monday, Wednesday, 3 to 5 P.M.; Tuesday, Thursday, 9.30 to 11.30 A.M.; Saturday, 11 A.M.-12 M.

Assistant Dean of Harvard College: LAWRENCE SHAW MAYO, A.M.

Office, 2 University Hall. Office hours, Tuesday, Wednesday, Thursday, Friday, 10 A.M. to 1 P.M.

Recorder of the Faculty of Arts and Sciences: GEORGE WASHINGTON CRAM, A.B.

Office, 4 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Chairman of the Committee on Admission: JOHN GODDARD HART, A.M.

Office, 20 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Dean of Special Students, and Dean in Charge of University Extension: JAMES HARDY ROPES, A.B., D.D.

Office, 19 University Hall.

Director of the Summer School of Arts and Sciences, and Secretary of the Administrative Board for Special Students: ARTHUR FISHER WHITTEM, PH.D.

Office, 19 University Hall. Office hours, Monday, Wednesday, Friday, 1 P.M.

Secretary of the Graduate School of Arts and Sciences: GEORGE WASHINGTON ROBINSON, A.B.

Office, 24 University Hall. Office hours, daily, 10 A.M. to 12 M., and daily, except Saturday, 2 to 4 P.M.

Secretary for Student Employment: MORRIS GRAY, JR., A.B.

Office, 9 University Hall. Office hours, daily, 10 A.M. to 12.30 P.M.

LABORATORIES AND MUSEUMS ASSOCIATED WITH THE FACULTY OF ARTS AND SCIENCES

Director of the Chemical Laboratory: ARTHUR BECKET LAMB, PH.D.

Assistant Director of the Chemical Laboratory: WILLIS ARNOLD BOUGHTON, A.B.

The Chemical Laboratory is in Boylston Hall.

Director of the Wolcott Gibbs Memorial Laboratory: THEODORE WILLIAM RICHARDS, PH.D., S.D., LL.D., CHEM.D., M.D.

The Wolcott Gibbs Memorial Laboratory is on Frisbie Place.

Acting Director of the Jefferson Physical Laboratory: EDWIN HERBERT HALL, PH.D., LL.D.

The Jefferson Physical Laboratory is on Holmes Field.

Director of the Cruft High-Tension Engineering Laboratory: GEORGE WASHINGTON PIERCE, PH.D.

The Jefferson Physical Laboratory and the Cruft Memorial Laboratory are on Holmes Field.

Director of the Museum of Comparative Zoölogy: SAMUEL HENSHAW, A.M.

Honorary Curator of the Botanical Museum: GEORGE LINCOLN GOODALE, M.D., LL.D.

Curator of the Mineralogical Museum: JOHN ELIOT WOLFF, PH.D.

Director of the Peabody Museum of American Archaeology and Ethnology: CHARLES CLARK WILLOUGHBY, A.M.

The above Museums are between Oxford Street and Divinity Avenue.

Curator of the Semitic Museum: DAVID GORDON LYON, PH.D., D.D.

The Semitic Museum is on Divinity Avenue.

Honorary Curator of the Germanic Museum: KUNO FRANCKE, PH.D., LL.D., LITT.D.

The Germanic Museum is at the corner of Kirkland Street and Divinity Avenue.

Director of the William Hayes Fogg Museum of Art, and Curator of the Gray Collection of Engravings: EDWARD WALDO FORBES, A.B.

Assistant Director of the William Hayes Fogg Museum of Art: PAUL JOSEPH SACHS, A.B.

Acting Director of the William Hayes Fogg Museum of Art: ARTHUR POPE, A.M.

The Fogg Museum of Art is on Cambridge Street.

Director of the Botanic Garden: OAKES AMES, A.M.

Curator of the Gray Herbarium: BENJAMIN LINCOLN ROBINSON, PH.D.

The Herbarium and Botanic Garden are at the corner of Garden and Linnaean Streets.

Director of the Harvard University Press: HAROLD MURDOCK, A.M.

The Harvard University Press is in Randall Hall, corner of Kirkland Street and Divinity Avenue.

OTHER FACULTIES AND DEPARTMENTS

Acting Dean of the Faculty of Architecture: CHARLES WILSON KILLAM.

Office, Robinson Hall. Office hours, daily, except Saturday, 9 to 12 A.M.

Dean of the Graduate School of Business Administration: EDWIN FRANCIS GAY, PH.D.

Office, 17 University Hall. Office hours, Tuesday, Thursday, and Saturday, 11 A.M. to 12 P.M.

Dean of the Bussey Institution: WILLIAM MORTON WHEELER, PH.D., S.D.

Office, Bussey Institution, Forest Hills.

Dean of the Faculty of Divinity: WILLIAM WALLACE FENN, A.M., D.D.

Secretary of the Faculty of Divinity: HENRY WILDER FOOTE, A.M., S.T.B.

Dean of the Faculty of Law: ROSCOE POUND, PH.D., LL.M., LL.D., D.C.L.
Office, Langdell Hall, Cambridge.

Secretary of the Faculty of Law: RICHARD AMES, A.B., LL.B.

Office, Langdell Hall, Cambridge. Office hours, daily, 9 A.M. to 1 P.M.

Dean of the Faculty of Medicine: } DAVID LINN EDSALL, M.D., S.D., *Dean,*
Dean of the Medical School: } and *Jackson Professor of Clinical*
 } *Medicine.*

Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, by appointment.

Assistant Dean of the Faculty of Medicine: WORTH HALE, A.B., M.D.

Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, Tuesday, Wednesday, and Thursday, 4 to 5 P.M., and by appointment.

Secretary of the Faculty of Medicine: FRANCIS WINSLOW PALFREY,
A.B., M.D.

Office, Harvard Medical School, Longwood Avenue, Boston. Office hours, Tuesday, 4 to 5 P.M.

Dean of the Graduate School of Medicine: ALEXANDER SWANSON BEGG,
M.D.

Office, Harvard Medical School. Office hours, by appointment.

Acting Dean of the Graduate School of Medicine: CHARLES LOCKE
SCUDDER, PH.B., M.D.

Director of the Graduate School of Medicine: HORACE DAVID ARNOLD,
A.B., M.D.

Office, Harvard Medical School. Office hours, by appointment.

Secretary of the Graduate School of Medicine: LEWIS WEBB HILL,
A.M., M.D.

Office, Harvard Medical School. Office hours, Monday, Wednesday, Friday, 12 M. to 1 P.M.; Tuesday and Thursday, 2 to 3 P.M.

Dean of the Dental School: EUGENE HANES SMITH, D.M.D.

Office, Harvard Dental School, Longwood Avenue, Boston. Office hours, 11 A.M. to 12 M.; 4 to 5 P.M., daily except Saturdays, and by appointment.

Secretary to the Dean, and Chief Clerk of the School: FLORENCE M. LANE.

Office, Harvard Dental School, Longwood Avenue, Boston. Office hours, daily, 9 A.M. to 1 P.M.; 2 to 5 P.M., except Saturdays; Saturdays, 9 A.M. to 12 M.

Curator of the Dental Museum and Librarian: WALDO ELIAS BOARDMAN, D.M.D.

Museum and Library are in the Dental School Building, Longwood Avenue; Office of the Curator and Librarian, 419 Boylston St., Boston.

Director of the Arnold Arboretum: CHARLES SPRAGUE SARGENT, A.B.,
LL.D.

The Arnold Arboretum is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y., N.H., and Hartford Railroad.

Director of the Blue Hill Meteorological Observatory: ALEXANDER
GEORGE MCADIE, A.M., S.M.

The Blue Hill Observatory is in Readville, Mass.

THE DENTAL SCHOOL

FACULTY OF MEDICINE *

ADDRESS.†

- ABBOTT LAWRENCE LOWELL, LL.B., LL.D.,
Ph.D., PRESIDENT, 17 Quincy St., Cambridge.
- DAVID L. EDSALL, M.D., S.D., DEAN, and *Jackson*
Professor of Clinical Medicine, Mass. General Hospital.
- WORTH HALE, M.D., *Assistant Dean of the Faculty*
of Medicine, and Associate Professor of Pharmacology,
91 Avalon Road, Waban.
- CHARLES A. BRACKETT, D.M.D., *Professor of*
Dental Pathology, Newport, R.I.
- EUGENE H. SMITH, D.M.D., *Professor of Clinical*
Dentistry, and Dean of the Dental School, 283 Dartmouth St.
- WILLIAM F. WHITNEY, M.D., *John Barnard Swett*
Jackson Curator of the Warren Anatomical Museum,
Harvard Medical School.
- WILLIAM T. COUNCILMAN, M.D., A.M., LL.D.,
Shattuck Professor of Pathological Anatomy, 78 Bay State Road.
- GEORGE H. MONKS, M.D., M.R.C.S., *Professor of*
Oral Surgery, 51 Commonwealth Ave.
- HAROLD C. ERNST, M.D., A.M., *Professor of Bacteri-*
ology, Harvard Medical School.
- WILLIAM H. POTTER, D.M.D., *Professor of Opera-*
tive Dentistry, 520 Beacon St.
- WILLIAM P. COOKE, D.M.D., *Professor of Preventive*
Dentistry and Oral Hygiene, 520 Beacon St.
- ALGERNON COOLIDGE, M.D., *Professor of Laryn-*
gology, 613 Beacon St.
- ROBERT W. LOVETT, M.D., *John B. and Buckmin-*
ster Brown Professor of Orthopedic Surgery, 234 Marlborough St.

* Arranged, with the exception of the President, Dean, and Assistant Dean, on the basis of collegiate seniority.

† The address is Boston, unless otherwise stated.

- WILLIAM T. PORTER, M.D., LL.D., S.D., *Professor of Comparative Physiology*, Dover.
- ELLIOTT G. BRACKETT, M.D., *Assistant Professor of Orthopedic Surgery*, 116 Newbury St.
- CHARLES L. SCUDDER, M.D., *Assistant Professor of Surgery*, 209 Beacon St.
- PAUL THORNDIKE, M.D., *Clinical Professor of Genito-Urinary Surgery*, 24 Marlborough St.
- MILTON J. ROSENAU, M.D., A.M., *Professor of Preventive Medicine and Hygiene*, 65 Naples Road, Brookline.
- EDWARD H. NICHOLS, M.D., *Professor of Clinical Surgery*, 294 Marlborough St.
- J. BAPST BLAKE, M.D., *Assistant Professor of Surgery*, 161 Beacon St.
- EUGENE A. CROCKETT, M.D., *Walter Augustus Leconte Professor of Otology*, 298 Marlborough St.
- HOWARD A. LOTHROP, M.D., *Assistant Professor of Surgery*, 101 Beacon St.
- JOHN L. MORSE, M.D., *Professor of Pediatrics*, 70 Bay State Road.
- ALEXANDER QUACKENBOSS, M.D., *Assistant Professor of Ophthalmology*, 143 Newbury St.
- CHARLES A. PORTER, M.D., *Professor of Clinical Surgery*, 116 Beacon St.
- EDWARD W. TAYLOR, M.D., *Professor of Neurology*, 457 Marlborough St.
- RICHARD C. CABOT, M.D., *Professor of Clinical Medicine*, 1 Marlborough St.
- ALICE HAMILTON, M.D., *Assistant Professor of Industrial Medicine*, 227 Beacon St.
- JAMES S. STONE, M.D., *Instructor in Surgery*, 234 Marlborough St.
- ELLIOTT P. JOSLIN, M.D., A.M., *Assistant Professor of Medicine*, 81 Bay State Road.
- CALVIN G. PAGE, M.D., *Instructor in Bacteriology*, 128 Marlborough St.
- C. MORTON SMITH, M.D., *Assistant Professor of Syphilology*, 437 Marlborough St.
- CHARLES J. WHITE, M.D., *Edward Wigglesworth Professor of Dermatology*, 259 Marlborough St.

- JAMES H. WRIGHT, M.D., S.D., *Assistant Professor*
of Pathology, Mass. General Hospital.
- HARVEY CUSHING, M.D., S.D., F.R.C.S., *Moseley*
Professor of Surgery, 305 Walnut St., Brookline.
- WILLIAM P. GRAVES, M.D., *Professor of Gynaecology,* 244 Marlborough St.
- REID HUNT, M.D., *Professor of Pharmacology,* 382 Commonwealth Ave.
- WILLIAM H. ROBEY, JR., M.D., *Instructor in Medicine,* 202 Commonwealth Ave.
- OTTO FOLIN, PH.D., S.D., *Hamilton Kuhn Professor*
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- ROBERT B. GREENOUGH, M.D., *Assistant Professor*
of Surgery, 8 Marlborough St.
- HARRIS P. MOSHER, M.D., *Assistant Professor of*
Laryngology, and Associate in Anatomy, 828 Beacon St.
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Obstetrics, 443 Beacon St.
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- CHARLES H. DUNN, M.D., *Instructor in Pediatrics,* 178 Marlborough St.

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- FREDERICK T. LORD, M.D., *Instructor in Medicine*, 305 Beacon St.
- ELMER E. SOUTHARD, M.D., A.M., S.D., *Bullard Professor of Neuropathology*, 70 Francis Ave., Cambridge.
- PERCY G. STILES, PH.D., *Assistant Professor of Physiology*, 19 Proctor St., Newtonville.
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- RAEMER RENSHAW, PH.D., *Assistant Professor of Chemical Research in Pharmacology*, 261 Winchester St., Brookline.
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 10 Dana St., Cambridge.
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ology, 332 Eliot St., Milton.
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logical Chemistry, 11 Story St., Cambridge.

STANDING COMMITTEES FOR THE DENTAL SCHOOL

Building.—Dr. Cooke (*Chairman*), Dr. E. H. Smith.

Courses of Study.—Dr. Smith (*Chairman*), Drs. Potter and L. M. S. Miner.

Students' Aid.—Any student who needs assistance, pecuniary or other, may consult Dr. Franklin Dexter, Director of Scholarships in the Medical School. Appointments may be made by calling at the Harvard Medical School, Building D 386, Mondays, from 2 to 3.30 P.M.

THE DENTAL SCHOOL

BOSTON

GENERAL STATEMENT

The Harvard Dental School is established in Boston and was instituted by vote of the President and Fellows of Harvard College, July 17, 1867. The first session of the School opened on the first Wednesday in November, 1867, and continued until the following March. The first examination of candidates for the degree of the School was held March 6, 1869.

Instruction in this School is given throughout the academic year, by lectures, recitations, clinical teaching, and practical exercises, uniformly distributed. The programme of instruction is progressive, and occupies four years.

Biology, anatomy, histology, physiology, physiological and dental chemistry, general pathology, oral anatomy and histology (normal and pathological), and bacteriology are pursued in the Harvard Medical School.

The degree of Doctor of Dental Medicine is given, on recommendation by the Faculty of Medicine, on the completion of the four years' course. The degree is given in two grades.

It is the object of the Faculty to present a complete course of instruction in the theory and practice of Dentistry; and for this purpose a well-appointed laboratory and infirmary are provided. Clinical instruction is given by the professors and other instructors; and each day patients are assigned to the students, ensuring to all the opportunity of operating at the chair, and becoming trained by actual practice in all the operations demanded of the dentist.

Students have access to the hospitals of the city, and are assigned to service in the Massachusetts General Hospital.

The Administrative Board reserves the right to require the withdrawal of any student at any time whenever, in the opinion of the Board, it is manifest that he is incompetent for his work or for any reason he is unfitted to continue the course.

THE DENTAL BUILDING

The Dental School is situated at the corner of Longwood Avenue and Wigglesworth Street. The building has the latest hospital equipment and is used solely for hospital purposes. It contains a commodious infirmary, three operating rooms for oral surgery with connecting wards, prosthetic laboratory, office of administration, library, museum, students' room and reception room.

It is connected by a subway with the Harvard Medical School buildings where all lectures are given.

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 ARTHUR W. HICKS, D.M.D., *Assistant in Prosthetic Dentistry.*
 GLENN W. LAWRENCE, D.M.D., *Assistant in Prosthetic Dentistry.*
 GEORGE P. PHILLIPS, D.M.D., *Assistant in Oral Pathology.*
 BENJAMIN D. WOLMAN, D.M.D., *Assistant in Prosthetic Dentistry.*

ADMISSION BY CERTIFICATE

All candidates for admission holding a degree in letters, science, or medicine, from a recognized college or scientific school, or who have passed an examination for admission to Harvard Collège or any other reputable college of letters are admitted without examination. All candidates who have passed the examinations of a four years' course in a reputable high school* are admitted without examinations. All other candidates must pass an examination.

All candidates are required to satisfy the Administrative Board that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry sufficient to fit them to pursue the courses in Chemistry given at the School, or, failing in this, to pass an examination in General Chemistry. †

A certificate of having passed the examination for admission will admit a student to this School only so long as the entrance requirements remain the same.

Graduates of recognized dental schools and reputable practitioners of dentistry who have never received a degree will be admitted without examination to the courses in Operative and Prosthetic Dentistry, but attendance on such courses does not entitle a student to examination for the degree. A certificate of attendance will be furnished when desired.

REGISTRATION

The academic year 1920-21 begins on Monday, September 27, 1920. All students register at the Dental School, Longwood Avenue, on that day, at 9 A.M.

DENTAL FACULTIES ASSOCIATION OF AMERICAN UNIVERSITIES

The schools holding membership in this Association are the Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania; University of Michigan, School of Dentistry; University of Iowa, School of Dentistry; University of Minnesota, School of Dentistry; University of California, School of Dentistry; Washington University Dental School, St. Louis, Mo.; Harvard University Dental School.

Applicants for advanced standing who have attended any of the above schools will be given credit for examinations passed in those schools.

* The course must have included the subjects which we require for entrance, or their equivalents.

† Special arrangements may be made for making up this condition in September previous to entering the School.

ADMISSION BY EXAMINATIONS

Examinations for admission to the Harvard Dental School will be held in the following subjects. Each candidate must offer studies amounting to 16 units. Sections 1, 2, 3, 4, 5 are required. Electives may be chosen from Section 6.

The figure attached to each study indicates the relative weight (termed units) which will be given to it in determining the question of the candidate's fitness for admission.

1. English (3)
2. Physics (1)
3. Latin (3)
 or French (2) or German (2) or Spanish (2)
 and Ancient History (1), Mediaeval and Modern History (1)
 or English History (1)
4. Theoretical and Descriptive (Inorganic) Chemistry (1)
5. Algebra (1½)

In addition he will be obliged to offer a sufficient number of subjects chosen from the list below to make up the total of 16 units required.

- | | |
|---------------------------------|-------------------------------|
| 6. Advanced Latin (1) | Biology (1), |
| Advanced French (1) | or Botany (½), or Zoölogy (½) |
| Advanced German (1) | Geography (½) |
| Advanced Algebra (½) | American History (½) |
| Plane Geometry (1) | Civil Government (½) |
| Solid Geometry (½) | Freehand Drawing (½) |
| Logarithms and Trigonometry (½) | Mechanical Drawing (½) |
| | Elementary Science (½) |

The examination in Theoretical and Descriptive (Inorganic) Chemistry will be given at the Harvard Dental School.

GENERAL REGULATIONS FOR EXAMINATIONS

All examinations for admission will be conducted by the College Entrance Examination Board.

Registration and Fees for Board Examinations.—Every candidate for examination in June, 1920, in any one or more of the subjects in which examinations are offered by the College Entrance Examination Board, is required to file a formal application with the Secretary of the College Entrance Examination Board, 431 West 117th St., New York, N. Y. The blank form for this application will be mailed to any teacher or candidate

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on request. A specimen of the candidate's handwriting will form a necessary part of the application.

In June, 1920, there will be separate blank forms for the "application for examination" and "certificate of recommendation." The former should be addressed to the College Entrance Examination Board, 431 West 117th Street, New York, N. Y., the latter to the Chairman of the Committee on Admission of the university, college, or scientific school that the candidate wishes to enter. Both forms may be obtained from the Secretary of the College Entrance Examination Board upon request by mail.

Provided that the application reach the College Entrance Examination Board not later than the date specified below, **the examination fee will be \$6.00 if the candidate is to be examined in the United States, \$20.00 if the candidate is to be examined outside of the United States.** The fee should be remitted by postal order, express order, or draft on New York to the College Entrance Examination Board.

Applications and fees of candidates who wish to be examined outside of the United States must reach the Secretary of the Board at least six weeks in advance of the examinations, that is, on or before May 3, 1920.

Applications and fees of candidates who wish to be examined in the United States at points west of the Mississippi River must be received at least four weeks in advance of the examinations, that is, on or before May 16, 1920.

Applications and fees of candidates who wish to be examined at points in the United States at points east of or on the Mississippi River must be received at least three weeks in advance of the first day of the examinations, that is, on or before May 24, 1920.

When the candidate has failed to obtain the required blank form of application for examination the usual examination fee will be accepted if the fee arrive not later than the specified date, accompanied by a memorandum containing the name and address of the candidate, the exact examination centre selected, and a list of all the subjects in which he may have occasion to take the Board's examinations.

Applications received later than the dates named will be accepted only upon payment of \$6.00 in addition to the usual fee.

In order to facilitate the making of arrangements for the proper conduct of the examinations, it is desired that all applications be filed as early as possible.

The fee must be paid by all applicants, whether they intend to present themselves for examination in one subject or in several subjects.

A candidate for examination in two or more successive years will be required to pay an examination fee each year.

Receipt for Fee.—Upon receiving the examination fee the Secretary will mail to the candidate an acknowledgment authorizing the candidate to take the Board's examinations. This receipt must be preserved by the candidate and exhibited, but not surrendered, to the local Supervisor in immediate charge of the conduct of the examinations as evidence of his right to be admitted to the same.

Should the candidate lose the receipt for his examination fee, or for any reason desire the issue of a duplicate receipt, a charge of twenty-five cents will be made for the issue of such duplicate receipt.

Return of Fees.—The fee of a candidate for examination in June, 1920, whose applications have been accepted by the Secretary, can under no circumstances be returned unless the request for the cancellation of the application and the return of the fee reaches the Secretary on or before Monday, June 7, 1920.

Certificates of Honorable Dismissal.—Every candidate for admission is required to furnish a certificate of honorable dismissal from the school or college he has attended, or from the tutor with whom he has studied. If a candidate has within a year left one school for another, or for a private tutor, any certificate received from the second school or private tutor must be accompanied by the written consent of the principal of the first school.

Good English.—Particular attention is called to the fact that the habitual use of good English is required in all subjects throughout the entrance examinations. However excellent in substance, no examination will be considered entirely satisfactory unless it is free from elementary errors in spelling, usage, punctuation, grammar, sentence-structure, and paragraphing. It is improbable that candidates will be able to satisfy this requirement unless they have been trained in school to regard their work in every subject as an opportunity for the use of correct and idiomatic English. In dealing with foreign languages, idioms strange to English should be especially avoided. When the answers are of considerable length candidates are advised to plan them before they begin to write. In every case they are urged to save the last few minutes of the examination for the revision and correction of details.

Laboratory Examinations.—A candidate who is examined in any study in which a laboratory examination is held will hand in his laboratory notebook at the hour of the laboratory examination.

SEPTEMBER 13-16, 1920

In September, 1920, examinations will be held in Cambridge only. The time-schedule will be as follows:—

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>
September 13	September 14	September 15	September 16
9 A.M.—12 M.	9 A.M.—12 M.	9 A.M.—12 M.	9 A.M.—12 M.
English	Latin	Elementary Mathematics	History
2 P.M.—5 P.M.	2 P.M.—5 P.M.	2 P.M.—5 P.M.	2 P.M.—5 P.M.
Physics	French	German	Greek
Chemistry	Spanish		Advanced Mathematics

Partial List of Examination Centres for June, 1920. — The following list, which is given to forestall a considerable number of inquiries, contains some of the more important places at which the Board will hold examinations in June 1920:—

Alabama, Birmingham.

Arkansas, Little Rock.

California, Berkeley, Los Angeles.

Colorado, Denver.

Connecticut, Bridgeport, Danbury, Derby, Hartford, Middletown, New Haven, Norwich, South Norwalk, Stamford, Waterbury, Winsted,

Delaware, Wilmington.

District of Columbia, Washington.

Florida, Jacksonville.

Georgia, Atlanta, Savannah.

Idaho, Boise.

Illinois, Chicago, Peoria.

Indiana, Indianapolis.

Iowa, Davenport, Des Moines, Dubuque.

Kentucky, Louisville.

Louisiana, New Orleans.

Maine, Bangor, Portland.

Maryland, Baltimore.

Massachusetts, Amherst, Beverly, Boston, Cambridge, Fall River, Fitchburg, Great Barrington, Lowell, New Bedford, Newburyport, Northampton, South Hadley, Springfield, Tufts College, Wellesley, Williamstown, Worcester.

Michigan, Detroit.

Minnesota, Minneapolis.

Missouri, Kansas City, St. Louis.

Montana, Butte.

Nebraska, Omaha.

New Hampshire, Concord, Hanover, Manchester.

New Jersey, Asbury Park, East Orange, Montclair, Newark, New Brunswick, Passaic, Plainfield, Princeton, Trenton.

New York, Albany, Brooklyn, Buffalo, Elmira, Ithaca, New York, Peekskill, Poughkeepsie, Rochester, Syracuse, Utica.

North Carolina, Asheville.

Ohio, Cincinnati, Cleveland, Columbus, Dayton, Toledo, Youngstown.

Oregon, Portland.

Pennsylvania, Erie, Harrisburg, Philadelphia, Pittsburgh, Reading, Scranton.

Rhode Island, Newport, Providence, Westerly.

South Carolina, Charleston.

Tennessee, Memphis, Nashville.

Texas, Austin, Dallas, El Paso, Houston.

Utah, Salt Lake City.

Vermont, Bellows Falls, Burlington, Rutland.

Virginia, Richmond, Roanoke.

Washington, Seattle.

Wisconsin, Milwaukee.

Hawaii, Honolulu.

STUDIES IN WHICH EXAMINATIONS ARE HELD

I. ENGLISH

The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

GRAMMAR AND COMPOSITION

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs, should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language

and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

LITERATURE

The second object is sought by means of two lists of books, headed respectively *Reading* and *Study*, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages both in verse and in prose. As an aid to literary appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

(a) *Reading*

The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by giving him a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except as otherwise provided under Group I:—

Group I. Classics in Translation.—The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Aeneid. The Odyssey, Iliad, and Aeneid should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II. Shakspeare.—Midsummer Night's Dream; Merchant of Venice; As You Like It; Twelfth Night; The Tempest; Romeo and Juliet; King John; Richard II; Richard III; Henry V; Coriolanus; Julius Caesar*; Macbeth*; Hamlet*.

Group III. Prose Fiction.—Malory's Morte d'Arthur (about 100 pages); Bunyan's Pilgrim's Progress, Part I; Swift's Gulliver's Travels (voyages to Lilliput and to Brobdingnag); DeFoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; Frances Burney's Evelina; Scott's

* If not chosen for study under (b).

Novels (any one); Jane Austen's Novels (any one); Maria Edgeworth's *Castle Rackrent*, or *The Absentee*; Dickens's Novels (any one); Thackeray's Novels (any one); George Eliot's Novels (any one); Mrs. Gaskell's *Cranford*; Kingsley's *Westward Ho! or Hereward, the Wake*; Read's *The Cloister and the Hearth*; Blackmore's *Lorna Doone*; Hughes's *Tom Brown's Schooldays*; Stevenson's *Treasure Island*, or *Kidnapped*, or *Master of Ballantrae*; Cooper's Novels (any one); Poe's *Selected Tales*; Hawthorne's *The House of the Seven Gables*, or *Twice-Told Tales*, or *Mosses from an Old Manse*; a collection of *Short Stories* by various standard writers.

Group IV. Essays, Biography, etc. — Addison and Steele's *The Sir Roger de Coverley Papers*, or *Selections from the Tatler and Spectator* (about 200 pages); Boswell's *Selections from the Life of Johnson* (about 200 pages); Franklin's *Autobiography*; Irving's *Sketch Book* (about 200 pages), or *Life of Goldsmith*; Southey's *Life of Nelson*; Lamb's *Essays of Elia* (about 100 pages); Lockhart's *Life of Scott* (about 200 pages); Thackeray's *Lectures on Swift, Addison, and Steele in the English Humourists*; Macaulay's *Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederic the Great, Madame d'Arblay* (any one); Trevelyan's *Life of Macaulay* (about 200 pages); Ruskin's *Sesame and Lilies*, or *Selections* (about 150 pages); Dana's *Two Years before the Mast*; *Selections from Lincoln*, including at least the two *Inaugurals*, the *Speeches in Independence Hall* and at *Gettysburg*, the *Last Public Address*, and the *Letter to Horace Greeley*, together with a brief memoir or estimate; Parkman's *The Oregon Trail*; Thoreau's *Walden*; Lowell's *Selected Essays* (about 150 pages); Holmes's *The Autocrat of the Breakfast Table*; Stevenson's *An Inland Voyage*, and *Travels with a Donkey*; Huxley's *Autobiography*, and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; a collection of *Essays* by Bacon, Lamb, DeQuincey, Hazlitt, Emerson, and later writers; a collection of *Letters* by various standard writers.

Group V. Poetry. — Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Palgrave's *Golden Treasury* (First Series), Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under *b*); Goldsmith's *The Traveller*, and *The Deserted Village*; Pope's *The Rape of the Lock*; a collection of *English and Scottish Ballads*, as, for example, some *Robin Hood ballads*, *The Battle of Otterburn*, *King Estmere*, *Young Beichan*, *Bewick and Grahame*, *Sir Patrick Spens*, and a selection from later ballads; Coleridge's *The Ancient Mariner*, *Christabel*, and *Kubla Khan*; Byron's *Childe Harold*, Canto III or IV, and *The Prisoner of Chillon*; Scott's *The Lady of the Lake*, or *Marmion*;

Macaulay's *The Lays of Ancient Rome*, *The Battle of Naseby*, *The Armada*, *Ivry*; Tennyson's *The Princess*, or *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, *The Pied Piper*, "*De Gustibus*"—, *Instans Tyrannus*; Arnold's *Sohrab and Rustum*, and *The Forsaken Merman*; *Selections from American Poetry*, with special attention to Poe, Lowell, Longfellow, and Whittier.

(b) Study

This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.

Group I. Drama. — Shakspeare's *Julius Caesar*, *Macbeth*, *Hamlet*.

Group II. Poetry. — Milton's *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*; Tennyson's *The Coming of Arthur*, *The Holy Grail*, and *The Passing of Arthur*; the selections from Wordsworth, Keats, and Shelley in Book IV of Palgrave's *Golden Treasury* (First Series).

Group III. Oratory. — Burke's *Speech on Conciliation with America*; Macaulay's *Two Speeches on Copyright*, and Lincoln's *Speech at Cooper Union*; Washington's *Farewell Address*, and Webster's *First Bunker Hill Oration*.

Group IV. Essays. — Carlyle's *Essay on Burns*, with a selection from Burns's *Poems*; Macaulay's *Life of Johnson*; Emerson's *Essay on Manners*.

EXAMINATION

However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The examination will be divided into two parts, one of which will be on grammar and composition, and the other on literature.

In grammar and composition, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English, which one should know in distinction from current errors. The main test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will

be drawn from the books read, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner will provide several subjects, perhaps eight or ten, from which the candidate may make his own selections. He will not be expected to write more than four hundred words per hour.

The examination in literature will include : —

A. General questions designed to test such a knowledge and appreciation of literature as may be gained by fulfilling the requirements defined under (*a*) *Reading*, above. The candidate will be required to submit a list of the books read in preparation for the examination, certified by the principal of the school in which he was prepared ; but this list will not be made the basis of detailed questions.

B. A test on the books prescribed for study, which will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works, and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

LATIN

I. AMOUNT AND RANGE OF THE READING REQUIRED

1. The Latin reading, without regard to the prescription of particular authors and works, shall be not less *in amount* than Caesar, Gallic War, I-IV ; Cicero, the orations against Catiline, for the Manilian Law, and for Archias ; Vergil, Aeneid, I-VI.

2. The amount of reading specified above shall be selected by the schools from the following authors and works : Caesar (Gallic War and Civil War) and Nepos (Lives) ; Cicero (orations, letters, and De Senectute) and Sallust (Catiline and Jugurthine War) ; Vergil (Bucolics, Georgics, and Aeneid) and Ovid (Metamorphoses, Fasti, and Tristia).

II. SCOPE OF THE EXAMINATIONS

1. *Translation at Sight.* Candidates will be examined in translation at sight of both prose and verse. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.

2. *Prescribed Reading.* Candidates will be examined also upon the following prescribed reading : Cicero, orations for the Manilian Law and for Archias, and Vergil, Aeneid, I, II, and either IV or VI, at the option of the candidate, with questions on subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed

reading are set for translation will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.

3. *Grammar and Composition.* The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

ELEMENTARY LATIN

The requirements in Elementary Latin may be met by the following examinations of the Board:—

Grammar.—The examination will presuppose the reading of the required amount of prose (see I, 1 and 2), including the prose works prescribed (see II, 2).

Elementary Prose Composition.—The examination will presuppose the reading of the required amount of prose (see I, 1 and 2), including the prose works prescribed (see II, 2).

Cicero (orations for the Manilian Law and for Archias) and Sight Translation of Prose.—The examination will presuppose the reading of the required amount of prose (see I, 1 and 2)

or

Vergil (Aeneid, I, II, and either IV or VI, at the option of the candidate) and Sight Translation of Poetry.—The examination will presuppose the reading of the required amount of poetry (see I, 1 and 2)

FRENCH

The requirements in French follow the recommendations of the Committee of Twelve of the Modern Language Association of America.*

ELEMENTARY FRENCH

The Aim of the Instruction

At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of every-day life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

* The Report of the Committee of Twelve, which was submitted in December, 1898, may be obtained in separate book form from D. C. Heath & Co. The lists of texts at present given in the requirements of the College Entrance Examination Board were recommended by a committee of the Modern Language Association in December, 1910.

The Work to be done

During the first year the work should comprise :

1. Careful drill in pronunciation.
2. The rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax.
3. Abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
4. The reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English) and in reproducing from memory sentences previously read.
5. Writing French from dictation.

Suitable texts for the first year: A well-graded reader for beginners; Bruno, *Le tour de la France*; Compayré, *Ivan Gall*; Laboulaye, *Contes bleus*; Malot, *Sans famille*.

During the second year the work should comprise :

1. The reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches.

GERMAN

The requirements in German follow the recommendations of the Committee of Twelve of the Modern Language Association of America.*

ELEMENTARY GERMAN

The Aim of the Instruction

At the end of the elementary course in German the pupil should be able to read at sight, and to translate, if called upon, by way of proving ability to read, a passage of very easy dialogue or narrative prose, help being given upon unusual words and construction, to put into German short English sentences taken from the language of every-day life or based upon the text given for translation, and to answer questions upon the rudiments of the grammar, as defined below.

* The Report of the Committee of Twelve, which was submitted in December, 1898, may be obtained in separate book form from D. C. Heath & Co. The lists of texts at present given in the requirements of the College Entrance Examination Board were recommended by a committee of the Modern Language Association in December, 1910.

The Work to be done

During the first year the work should comprise :

1. Careful drill upon pronunciation.
2. The memorizing and frequent repetition of easy colloquial sentences.
3. Drill upon the rudiments of grammar ; that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs and the more usual strong verbs ; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order.
4. Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
5. The reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

SPANISH

The requirement in Spanish, which follows the form and spirit of the recommendations made for French and German by the Committee of Twelve of the Modern Language Association, is based upon recommendations made by a committee of that Association in December, 1910.

The Aim of the Instruction

At the end of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of every-day life or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar, as indicated below.

The Work to be Done

During the first year the work should comprise :

1. Careful drill in pronunciation.
2. The rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax.
3. Exercises containing illustrations of the principles of grammar.

4. The careful reading and accurate rendering into good English of about 100 pages of easy prose and verse, with translation into Spanish of easy variations of the sentences read.
5. Writing Spanish from dictation.

During the second year the work should comprise :

1. The reading of about 200 pages of prose and verse.
2. Practice in translating Spanish into English, and English variations of the text into Spanish.
3. Continued study of the elements of grammar and syntax.
4. Mastery of all but the rare irregular verb forms and of the simpler uses of the modes and tenses.
5. Writing Spanish from dictation.
6. Memorizing of easy short poems.

The emphasis should be placed on careful thorough work with much repetition rather than upon rapid reading. The reading should be selected from the following : A collection of easy short stories and lyrics, carefully graded ; Juan Valera, *El pájaro verde* ; Perez Escrich, *Fortuna* ; Ramos Carrión and Vital Aza, *Zaragueta* ; Palacio Valdés, *José* ; Pedro de Alarcón, *El Capitán Veneno* ; the selected short stories of Pedro de Alarcón or Antonio de Trueba.

Every secondary school in which Spanish is taught should have in its library several Spanish-English and English-Spanish dictionaries, the all-Spanish dictionary of the Royal Spanish Academy ; one or more manuals of the history of Spanish literature, such as that by Fitzmaurice-Kelly, and Ticknor's *History of Spanish Literature*.

HISTORY

ELEMENTARY HISTORY

The requirements in History are based on the recommendations of the Committee of Seven of the American Historical Association.

A. *Ancient History*, with special reference to Greek and Roman History, and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemagne.

B. *Mediaeval and Modern European History*, from the death of Charlemagne to the present time (1).

C. *English History* (1).

D. *American History and Civil Government* (1).

The examinations in history will be framed so as to require the use of both judgment and memory on the pupil's part. They will presuppose

the use of good text-books, collateral reading, and practice in written work. Geographical knowledge will be tested by requiring the location of places and movements on an outline map.

The Report of the Committee of Seven, which appeared in the Proceedings of the American Historical Association for 1898, was published separately under the title, "Study of History in Schools," by The Macmillan Company in 1899. It was incorporated in the Report made to the National Education Association in 1899 by the Committee on College Entrance Requirements.

The attention of teachers is called also to the report of the Committee of Five of the American Historical Society, "The Study of History in Secondary Schools" (New York, The Macmillan Company, 1911). The examiners of the Board will endeavor to frame the examination papers *on the four fields of work defined above* in accordance with the recommendations of this committee.

MATHEMATICS

A thorough practical acquaintance with ordinary Arithmetic is assumed as underlying all preparation in Mathematics. Knowledge of the fundamental principles of Arithmetic and careful training in accurate computation with whole numbers and with vulgar and decimal fractions form an essential part of early school work. But the pupil's time should not be wasted in the solution by arithmetic of puzzling problems which properly belong to algebra, or in complicated and useless reductions, or in the details of commercial arithmetic. It is desirable that some familiarity with algebraic expressions and symbols, including the methods of solving simple equations, be acquired in connection with the course in Arithmetic.

ELEMENTARY MATHEMATICS

Elementary Algebra. — Algebra, through Quadratic Equations.

The requirement in Algebra includes the following subjects: factors, common divisors and multiples, fractions, ratios and proportions; negative quantities and the interpretation of negative results; the doctrine of exponents; radicals and equations involving radicals; the binomial theorem for positive integral powers of the binomial, and the extraction of roots; arithmetical and geometrical progressions; putting questions into equations and the reduction of equations; the ordinary methods of elimination and the solution of both numerical and literal equations of the first and second degrees with one or more unknown quantities and of problems leading to such equations.

The student should cover carefully the whole ground here specified, and should acquire a thorough understanding not only of the practice, but of the reasons involved in the elementary algebraic rules; for example, in the rules of multiplication, of signs, and of exponents, in the rules for fractions, and in those relating to the reduction and solution of equations.

He should train himself to practical skill by the solution of a large number of examples, and should learn to do his work with reasonable quickness, as well as with confidence, accuracy, and clearness. The solution of fairly complicated literal quadratics, the various methods of elimination for equations of the first two degrees, the putting of problems in a neat manner into equations, and the working of the various algebraic operations both for integral and fractional expressions may be mentioned as important subjects of attention. The student should be taught to arrange his work in a clear, orderly, and compact fashion.

The time supposed to be devoted to the systematic study of the requirement in Algebra is the equivalent of a course of three lessons a week through two school years.

PLANE GEOMETRY

The usual theorems and constructions of good text-books,* including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle.

The solution of numerous original exercises, including loci problems.
Applications to the mensuration of lines and plane surfaces.

SOLID GEOMETRY

The usual theorems and constructions of good text-books,* including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

The solution of numerous original exercises, including loci problems.
Applications to the mensuration of surfaces and solids.

PHYSICS

A course of study dealing with the leading elementary facts and principles of Physics.

The instruction given in this course should accord with the following specifications:—

1. The unit in Physics [full requirement] consists of at least 120 hours of 60 minutes each. [If this study is taken earlier than the last year of the school course, more time should be allowed for it.] Time spent in the laboratory shall be counted at one-half face value.

* The Board's examination questions in plane and solid geometry will be limited to propositions contained in the syllabus prepared by the National Committee of Fifteen appointed by the American Federation of Teachers of the Mathematical and Natural Sciences and the National Education Association. The Report of the Committee was published in *The Mathematics Teacher* for December, 1912. Reprints of the Report may be obtained *gratis* upon application to the Commissioner of Education, Department of the Interior, Washington, D. C.

2. The course of instruction in Physics should include: —

(a) The study of one standard text-book for the purpose of obtaining a connected and comprehensive view of the subject. The student should be given opportunity and encouragement to consult other scientific literature.

(b) Instruction by lecture table demonstrations to be used mainly for illustration of the facts and phenomena of Physics in their qualitative aspects and in their practical applications.

(c) Individual laboratory work, consisting of experiments requiring at least the time of 30 double periods [60 full hours in all]. The experiments performed by each student should number at least 30. Those named in the appended list are suggested as suitable. [This reference is to the Board List, which is not here reproduced.] The work should be so distributed as to give a wide range of observation and practice.

The aim of the laboratory work should be to supplement the pupil's fund of concrete knowledge and to cultivate his power of accurate observation and clearness of thought and expression. The exercises should be chosen with a view to furnishing forceful illustrations of fundamental principles and their practical applications. They should be such as yield results capable of ready interpretation, obviously in conformity with theory [not so inaccurate or uncertain as to obscure the principles they are intended to illustrate], and free from the disguise of unintelligible units.

Slovenly work should not be tolerated, but the effort for precision should not lead to the use of apparatus or processes so complicated as to obscure the principle involved.

3. Throughout the whole course special attention should be paid to the common illustrations of physical laws and to their industrial applications.

4. In the solution of numerical problems the student should be encouraged to make use of the simple principles of algebra and geometry to reduce the difficulties of solution. Unnecessary mathematical difficulties should be avoided and care should be exercised to prevent the student's losing sight of the concrete facts, in the manipulation of symbols.

The Examination. — The candidate is required to pass both a written examination and a laboratory examination.

The laboratory examination, in the course of which oral questioning may be freely used, will require performance by the candidate of a number of experiments assigned to him at the time by the examiner, the range of assignment being limited by the following provision: The candidate must name as the basis for his laboratory examination at least thirty exercises selected from a list of about fifty, described in a publication issued by Harvard University under the title *Descriptive List of Elementary Exercises in Physics*.*

This laboratory examination may occupy the candidate from one and a half to two and a half hours, no time limit, as a rule, being set for it.

The candidate is required to present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain a table of contents of the exercises which it describes. These exercises need not be the same as those upon which the candidate presents himself for the laboratory examination, but should be equivalent to them in amount and grade of quantitative work.

The note-book is required as proof that the candidate has formed the habit of keeping a full and intelligible record of laboratory work through an extended course of experiments, and that his work has been of such a character as to raise a presumption in favor of his prepa-

* This list may be obtained, price 40 cents, at 2 University Hall, Cambridge.

In place of the Harvard Descriptive List, the revised list of the College Entrance Examination Board, as adopted in 1909, may be used.

ration for the examination. But much greater weight will be given to the laboratory examination than to the note-book in determining the candidate's attainments in physics. Experience has shown that pupils can make the original record of their observations entirely presentable, so that copying will be unnecessary, and they should in general be required to do so.

CHEMISTRY

A course of systematic instruction in the principles of Chemistry and their application.

The candidate is required to pass both a written and a laboratory examination. The preparation required for the written examination may be found in the Revised Requirements in Chemistry issued by the College Entrance Examination Board. The preparation required for the laboratory examination is the performance by the student of not less than forty experiments of good length and quality similar in character and scope to those given in the requirements mentioned above. The candidate is further required to present the original note-book in which he recorded the steps and results of the experiments which he performed at school, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. Experiments not offered for examination must be plainly designated. This note-book is required as proof that the candidate has formed the habit of keeping a full and intelligible record of laboratory work made during the actual progress of his experiments. The original record of all data and observations should be presented. Greater weight will be given to the laboratory examination than to the note-book in determining the candidate's attainments in Chemistry.

GEOGRAPHY

Geography.—A course of study equivalent to that described in the outline of requirements in Geography published by the College Entrance Examination Board.

BIOLOGY, BOTANY, AND ZOÖLOGY

Botany.—A course of study and laboratory work equivalent to that indicated in an outline of requirements in Biology, Botany, and Zoölogy, issued by the College Entrance Examination Board. The course should extend through at least half of a school year, with five lessons a week.

Zoölogy.—A course of study and laboratory work equivalent to that described in a pamphlet entitled an Outline of Requirements in Zoölogy, issued by the College Entrance Examination Board. The course should extend through at least half of a school year, with five lessons a week.

In Botany and in Zoölogy the candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the subject. The laboratory examination will test his skill in observation and experimentation, and his ability to apply names properly to the parts of the organisms studied.*

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

DRAWING

A course of drawing, in either or both of the following branches, equivalent to that described in the outline of requirements in Drawing, issued by the College Entrance Examination Board.

Freehand Drawing.—The representation of simple objects, in outline and with shading.

The candidate's preparation in drawing should be directed toward training him in accurate observation and in definite and truthful representation of form, without attempt to represent color or color values.

The candidate should be able to draw correctly and with lines of good quality simple form in correct perspective in the size in which it is felt in the plane of the drawing, or larger or smaller. It is recommended that pupils should be taught to draw from the object itself rather than from the flat.

Correctness of proportion and accuracy in the angles and curves and structural relations of the parts of every object drawn are of the highest importance.

The elementary principles of perspective are to be thoroughly learned, and the candidate should be able to apply them in freehand drawing from the object or from the imagination.

No definite prescription as to method of teaching is made. The examination will test the preparation of the candidate in the following points:—

1. Ability to sketch from the object with reasonable correctness as to proportion, structure and form. It is recommended that the subjects drawn include simple geometrical objects and simple natural objects, such as living plant forms.
2. Ability to sketch freehand from dictation with reasonable accuracy any simple geometrical figure or combination of figures.
3. Ability to represent accurately in perspective a simple geometrical solid of which projection drawings are given, and ability to make consistent projection drawings of a simple geometrical solid of which a perspective representation is given.
4. Ability to answer questions in regard to the principles involved in making these drawings.

Mechanical Drawing.—A course in drawing equivalent to that described in the definition of requirements in Mechanical Drawing published by the College Entrance Examination Board.

* For rules relating to laboratory examinations and note-books, see p. 29.

CIVIL GOVERNMENT

Civil Government.—Civil Government in the United States (national, state, and local); its constitution, organization, and actual working.

The candidate will be expected to show, on examination, such general knowledge of the field as may be acquired from the study of a good textbook of not less than three hundred pages, supplemented by collateral reading, and discussion. The examination will call for familiarity with constitutional questions and with the procedure of legislative bodies.

For preparation in this subject, a course of study equivalent to at least three lessons a week for one year will be necessary.

NEW REQUIREMENTS FOR ADMISSION—1921

As candidates for the degree of Doctor of Dental Medicine, the School receives in September, 1921, the following:—

1. Graduates in Arts or Science of approved colleges or scientific schools.
2. Students who have completed a year in Harvard College or in any approved college or scientific school.

Students desiring to take their pre-dental year in Harvard College will be admitted on certificate showing that they have passed the examinations of a four-year course in an approved high school.

LANGUAGE AND SCIENCE REQUIREMENTS

- (a) All applicants must present evidence that they have such knowledge of English as is ordinarily obtained in one year in an approved college (six semester hours); Biology (six semester hours); Chemistry (six semester hours); and six semester hours of electives from the following:—

A modern foreign language.

Mathematics.

History.

Technical drawing.

Shop practice.

- (b) A certificate of the completion of one year of work in Physics in an approved high school or one year college Physics.

IMPORTANT NOTICE.—All persons who wish to enter Harvard College as a pre-dental student must have their high school certificates approved by the Dean of the Dental School, Longwood Ave., Boston.

FOUR-YEAR COURSE

FIRST YEAR

Biology	
Chemistry, Qualitative, and Metallurgy	
(1 month General) Inorganic and Dental	
English — Conference and theses	
Histology	
General Pathology	
Anatomy	
Prosthetic Dentistry — Technique	
Mechanical and Freehand Drawing	

SECOND YEAR

Physiology	
Bacteriology	
Oral Hygiene	
Oral Anatomy, Pathology and Histology	
Prosthetic Dentistry — Technique	
Prosthetic Dentistry — Lectures and demonstrations	
Chemistry, Organic, Physiological and Clinical	
Operative Technique	

THIRD YEAR *

Materia Medica and Therapeutics — Lectures	
Dental Pathology — Lectures	
Crown and Bridge — Lectures	
Crown and Bridge — Technique	
Operative Dentistry — Lectures	
Operative Dentistry — Practice	
Oral Prophylaxis	
Prosthetic Dentistry — Lectures	
Prosthetic Dentistry — Practice	
Inlay Work	
Radiography — Lectures (Demonstrations in sections)	

* Tentative Plan.

FOURTH YEAR *

Operative Dentistry — Lectures	
Operative Dentistry — Practice	
Surgery and Surgical Pathology — Lectures	
Operative Surgery — Sections	
Crown and Bridge — Lectures	
Crown and Bridge — Practice	
Orthodontia — Lectures	
Orthodontia — Practice	
Inlay Work	
Prosthetic Dentistry — Practice and Demonstrations . .	
Physical Diagnosis — Sections	
Dental Jurisprudence and Conduct of Practice	
Syphilology — Lectures and conferences	
Neurology — Lectures	

* Tentative Plan.

TABULAR VIEW — 1919-20

FIRST YEAR

(FOUR-YEAR COURSE)

October to December

January

	Biology		MONDAY	TUESDAY	WED.	THURSDAY	FRIDAY	SATURDAY
9-10	Lecture. Daily except Saturday	*Chemistry *Biology	Mechanical and Freehand Drawing			English Chemistry	Mechanical and Freehand Drawing	English Chemistry
10-1	Laboratory. Daily except Saturday							

PHYSIOLOGICAL AND DENTAL CHEMISTRY.

Lecture. Daily except Saturday.

Laboratory. Daily except Saturday.

* Alternate Saturdays to January.

February to June

	February — April 17	April 26 — May 22	Saturday
9-1	Histology except Saturday	General Pathology	Prosthetic Dentistry
2-5	Anatomy		

METHODS OF INSTRUCTION

DENTAL AND PHYSIOLOGICAL CHEMISTRY

H. CARLTON SMITH, Ph.G., *Lecturer on Dental Chemistry.*

FRED M. RICE, A.M., *Instructor in Chemistry.*

As dentistry is more and more coming to be considered a specialty of medicine it becomes necessary to broaden the chemical field covered by the dental curriculum to include not only the metallurgy and qualitative analysis, which a few years ago constituted nearly the whole of Dental Chemistry, but also practically all the branches required by the medical schools, with emphasis directed of course to dental rather than medical requirements. In recognition of this fact the chemistry course comprises a study of the following subjects, taken in about the order named:—

Advanced General Chemistry, including the fundamental principles of physical chemistry, such as mass action, ionization, equilibrium solution, and precipitation.

Qualitative Analysis of solutions and solids, including examination of alloys, dental cements, etc.

The Principles of Volumetric Analysis in sufficient detail to enable a student to make quantitative examination of a dental alloy or determine the strength of hydrogen peroxide solutions.

Organic Chemistry to make possible an intelligent study of physiological chemistry. Then a short course in clinical chemistry designed to show the relations existing between oral and systemic conditions.

A short chemical thesis is required of each student, which necessitates the careful study of current dental literature and a consideration of the various theories regarding dental decay, erosion, etc.

Daily lectures and laboratory work, with oral quizzes or recitation twice and written tests once each week, constitute the method of instruction for the entire course aggregating about 140 half-days, equivalent to about twelve weeks of solid time.

Text-books.—Chemistry for Dental Students, third edition, Smith. Fifth edition of Practical Physiological Chemistry, Hawk. Dental Metallurgy, Essig. Organic Chemistry, Norris.

Reference Books.—Holland's Medical Chemistry and Toxicology. Ogden, Examination of Urine. Hammarsten, Physiological Chemistry. Stieglitz, Qualitative Analysis. Alexander Smith, General Chemistry for Colleges.

Lectures. MR. SMITH. *Five times a week throughout the first half of the first year and three times a week for twelve weeks during the second year.* 93

Demonstrations or Laboratory Experiments. MR. SMITH and MR. RICE. *Three hours a day, five times a week throughout the first half of first year and three times a week for twelve weeks during the second year.* 309

English. Instruction in English is an integral part of the chemistry course. Compositions chosen from that portion already pursued by the class are required frequently, and are examined by the English instructor for criticism and suggestions on both form and substance. No student is given a passing grade unless he can express his ideas clearly and accurately. This course in English composition is required of all candidates for the degree.

ANATOMY

JOHN L. BREMER, M.D., *Associate Professor of Histology.*

FREDERIC T. LEWIS, M.D., *Associate Professor of Embryology.*

JOHN WARREN, M.D., *Associate Professor of Anatomy.*

DAVID CHEEVER, M.D., *Assistant Professor of Surgery, and Associate in Anatomy.*

HARRIS P. MOSHER, M.D., *Assistant Professor of Laryngology, and Associate in Anatomy.*

ALEXANDER S. BEGG, M.D., *Instructor in Anatomy.*

ROBERT M. GREEN, M.D., *Instructor in Anatomy.*

Z. BOYLSTON ADAMS, M.D., *Instructor in Orthopedic Surgery, and Associate in Anatomy.*

RICHARD H. MILLER, M.D., *Instructor in Surgery, and Assistant in Anatomy.*

ALBERT A. SHAPIRA, M.D., *Instructor in Anatomy.*

TORR W. HARMER, M.D., *Assistant in Anatomy.*

ARCHIBALD N. FRASER, M.D., *Assistant in Anatomy.*

FRANK A. HAMILTON, M.D., *Assistant in Anatomy.*

GEORGE A. LELAND, M.D., *Assistant in Anatomy and in Surgery.*

FRANK W. MARVIN, M.D., *Assistant in Anatomy.*

GEORGE W. MORSE, M.D., *Assistant in Anatomy.*

SAMUEL R. MEAKER, M.D., *Teaching Fellow in Histology.*

RALPH F. SHANER, Ph.B., *Austin Teaching Fellow in Histology.*

— — —, *Teaching Fellow in Histology.*

COMPARATIVE ANATOMY

— — —, *James Stillman Professor of Comparative Anatomy.*

EDWARD A. BOYDEN, Ph.D., *Assistant Professor of Comparative Anatomy.*

WILLIS J. BICKFORD, Jr., D.M.D., *Assistant in Comparative Anatomy.*

ROBERT B. BLACKLER, D.M.D., *Assistant in Comparative Anatomy.*

The department of anatomy occupies the Morgan Anatomical Building; the dissecting rooms are in the wing designated B I; and the laboratories for histology, embryology, and comparative anatomy, in the wing B II. In addition to the numerous class-rooms, which are well lighted and thoroughly equipped, there are ample accommodations for advanced students, and unusual facilities are at the disposal of qualified investigators. Further information in regard to advanced or special studies may be had upon application to Professor Warren or Professor Lewis. The regular courses for dental students are described below.

Comparative Anatomy and Biology. Beginning with 1918, the course in comparative anatomy was expanded to form a three-months' course in biology occupying the mornings of September, October, November, and December until the Christmas recess. This change, made possible by the addition of a fourth year to the curriculum of the Dental School, represents the culmination of a long-continued effort on the part of the Division of Anatomy and of the Administrative Board of the Dental School to furnish more adequate preliminary training for later courses in human anatomy, physiology, pathology, and bacteriology. The new plans provide for the laboratory study of both invertebrates and vertebrates, the former to occupy the first five weeks, the latter the remaining seven weeks of the course. Some attention will be given to plant biology, but the course will deal mainly with animals.* In order to familiarize the student with as wide a range of animals as possible and to teach something of their natural history, occasional field excursions will be introduced to supplement the usual museum visits. By means of the laboratory exercises a general knowledge of the morphology and life processes of the more representative groups of the animal kingdom will be obtained. At the same time, especial attention will be given to phases of the subject which have a direct bearing on subsequent courses, such as the comparative anatomy of the teeth in relation to dental courses, and a general survey of the field of parasitology in anticipation of the course in human pathology. An important corollary to the more theoretical discussions in the lectures will be the collateral reading, on the part of the students, of selected portions of the biological classics. Laboratory outlines will be provided for the course, and in addition students will be advised to purchase Hegner's *College Zoölogy* (MacMillan, 1915) for use as a general reference book. The laboratory fee for the course will be \$10.

September, October, November, and December (to the Recess) HOURS

Lectures. Professor BOYDEN. *Five times a week and alternate Saturdays beginning September 22.* 66

Laboratory work. Professor BOYDEN, Drs. BICKFORD, BLACKLER, and ——. *Three hours a day, five times a week and alternate Saturdays, as above.* 200

Gross Human Anatomy. Beginning on Friday, February 6, and continuing to the April recess, the class will have systematic daily lectures or demonstrations on gross anatomy at two o'clock, followed by dissection in the laboratory until 5.30. The dissection is supervised by the assistants in the course who will hold frequent oral quizzes. On Saturday mornings there will be additional special lectures and demonstrations, and on several occasions written tests. The study of the bones and joints will be conducted simultaneously with the dissection by means of specimens which will be issued in boxes to each student. In this manner the study of the anatomy of the entire body will be completed at the beginning of the April recess. Special emphasis is laid on the study and dissection of the head and neck, proportionally more time being devoted to this portion of the course than in the case of medical students. Special attention is given to the cavities of the head and face, and each student is expected to study and draw carefully specimens and frozen sections of the head in addition to his own dissection.

The afternoons of the four weeks following the April recess will be devoted to the course in oral anatomy and histology, described below. The remaining afternoons of May will be devoted to a complete review of the entire course.

Text-books. — Piersol's "Human Anatomy" is recommended, for which either Cunningham's or Gray's Anatomy may be substituted; and for collateral reading, — Dixon's "Manual of Human Osteology," Ivy's "Applied Anatomy for Dental Students," and Treves's "Applied Anatomy."

Fees. — Each regular dental student is charged a laboratory fee of nine dollars, of which six dollars is for dissecting room material, and three dollars for chemicals and microscopical sections used in other first-year courses. This laboratory fee is to be paid to the Bursar. At the beginning of the course each student is provided with a locker in the dissecting room and another in the histological laboratory. One dollar is deposited for each locker, to be repaid on returning the locker keys. At the end of the course any student who has broken or lost material belonging to the laboratory will be charged the cost of replacing the same.

February, March, and April

HOURS

Lectures or demonstrations. DR. ROBERT M. GREEN. *Five times a week.* 54

Dissection. Drs. GREEN, RISLEY, and SHAPIRA. *Two and one-half hours a day, five times a week (afternoons).* 135

Lectures and written tests. *Three hours, Saturdays.* 18

Microscopic Anatomy. This course begins Friday, February 6, and occupies the week day mornings, except Saturday, until the April recess. The first four weeks are devoted to the study of the differentiation and structure of the fundamental tissues; two weeks to embryological development, chiefly of the head; and the remainder of the course to the microscopic anatomy of carefully selected organs of the human body. In the last week the structures related to the mouth cavity are especially emphasized. Frequent examinations are introduced to test the progress of the students. The Text-book of Histology, arranged upon an embryological basis, by Lewis and Stöhr, 2d edition, will be used, and the following books for collateral reading are recommended: Wilson, *The Cell in Development and Inheritance*; Foster, *Lectures on the History of Physiology*; and Loey, *Biology and its Makers*; Bryce's *Embryology*, and Schäfer's *Microscopic Anatomy*, which are two volumes of the 11th edition of Quain's *Anatomy*.

February, March, and April (to the recess)

HOURS

Lectures. Associate Professors BREMER and LEWIS. *Five times a week.* 54

Laboratory. Associate Professors BREMER and LEWIS, Messrs. SHANER, —, and —. *Three hours a day, five times a week.* 162

PHYSIOLOGY

WALTER B. CANNON, M.D., *George Higginson Professor of Physiology.*

PERCY G. STILES, Ph.D., *Assistant Professor of Physiology.*

CECIL K. DRINKER, M.D., *Instructor in Physiology.*

ALEXANDER FORBES, M.D., *Instructor in Physiology.*

JOSEPH C. AUB, M.D., *Instructor in Physiology.*

STANLEY COBB, M.D., *Instructor in Physiology and in Neurology.*

WALLACE O. FENN, Ph.D., *Instructor in Applied Physiology.*

JONATHAN FORMAN, M.D., *Teaching Fellow in Physiology.*

DAVID L. RAPPORT, M.D., *Austin Teaching Fellow in Physiology.*

The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately one hundred and sixty hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticized from day to day.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is divided into sections and quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization. The examination books are returned, corrected, to the students.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the

class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Text-books.—No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Stewart, Manual of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbueh der Physiologie. Nagel, Handbuch der Physiologie.

November, December, and January HOURS

Laboratory experiments. Professor CANNON, Professor PORTER, and Asst. Professor ——. <i>Daily.</i>	160
Quizzes (14). <i>One hour Saturdays.</i>	14
Written tests (5). <i>One hour Mondays.</i>	5
Leetures (90). Professors CANNON and ——.	90
Special demonstrations (30). Professors CANNON and ——.	15

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

COMPARATIVE PHYSIOLOGY

WILLIAM T. PORTER, M.D., LL.D., *Professor of Comparative Physiology.*

GRADUATE COURSES

I. *Physiological Research.* Students qualified for research will pursue their investigations under the immediate direction of the Professor in charge.

II. *Comparative Physiology of Muscle.* Professor PORTER. Three hours weekly during February and March.

III. *Physiological Conference.* Professor PORTER. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 P.M., throughout the year.

BACTERIOLOGY

HAROLD C. ERNST, M.D., *Professor of Bacteriology.*

S. BURT WOLBACH, M.D., *Associate Professor of Pathology and Bacteriology.*

CLEVELAND FLOYD, M.D., *Instructor in Bacteriology.*

WILLIAM T. BOVIE, Ph.D., *Instructor in Bacteriology.*

CALVIN G. PAGE, M.D., *Instructor in Bacteriology.*

PHILIP CASTLEMAN, M.D., *Instructor in Bacteriology.*

LESLEY H. SPOONER, M.D., *Assistant in Bacteriology.*

ALBERT E. STEELE, M.D., *Instructor in Bacteriology.*

HORACE K. BOUTWELL, M.D., *Assistant in Bacteriology.*

Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Lectures. Professor ERNST. *Daily, except Saturdays, during October and November.* 40

Laboratory work. Professor ERNST, and Drs. STEELE, PAGE, PERRY, BOUTWELL, SPOONER, and FLOYD. *Two to three hours daily during October and November.* 120

ORAL ANATOMY, ORAL HISTOLOGY AND PATHOLOGY

KURT H. THOMA, D.M.D., *Assistant Professor in Oral Anatomy and Pathology.*

LEONARD D. NATHAN, D.M.D., *Instructor in Oral Pathology.*

GEORGE P. PHILLIPS, D.M.D., *Assistant in Oral Pathology.*

This course is given two afternoons a week from December until June. It consists of lectures and laboratory exercises. The development of the face and mouth as well as the teeth and salivary glands is taken up first. This is followed by a microscopic study of the soft and hard tissues of the end organs of the mouth. After the student has been made familiar with the structure of the normal tissues, the various pathological conditions are studied.

The embryological, histological, and pathological work is principally taught by means of microscopic study, each student being furnished with a set of slides, from which drawings are made. The knowledge gained by a parallel study of the histology of healthy and diseased tissues is not only invaluable in diagnosis, but is extremely important in developing an understanding of medical and surgical therapeutic measures. The lectures are

supplemented by the exhibition of lantern slides of photographs and Roentgenograms of anatomical and pathological specimens and microscopic sections.

Collateral Reading. — Hopewell-Smith, Normal and Pathological Histology of the Mouth, Vols. I and II. Thoma, Oral Roentgenology.

Lectures and demonstrations. Assistant Professor THOMA. *Twice a week for six months.*

Laboratory exercises. Assistant Professor THOMA, Instructor NATHAN, and Assistant PHILLIPS. *Twice a week for six months*

OPERATIVE DENTISTRY

- EUGENE H. SMITH, D.M.D., *Professor of Clinical Dentistry.*
 WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*
 CHARLES H. ABBOT, D.M.D., *Instructor in Operative Dentistry.*
 WALTER I. BRIGHAM, D.D.S., *Instructor in Operative Dentistry.*
 FORREST G. EDDY, D.M.D., *Assistant Professor of Clinical Dentistry.*
 GEORGE H. WRIGHT, D.M.D., *Assistant Professor of Dentistry.*
 FRANK PERRIN, D.M.D., *Instructor in Operative Dentistry.*
 EDWIN C. BLAISDELL, D.M.D., *Assistant Professor of Clinical Dentistry.*
 THOMAS W. WOOD, Jr., D.M.D., *Instructor in Operative Dentistry.*
 BENJAMIN H. CODMAN, D.M.D., *Instructor in Operative Dentistry.*
 FRANK T. TAYLOR, D.M.D., *Instructor in Operative Dentistry.*
 JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES E. B. CHASE, D.M.D., *Instructor in Operative Dentistry.*
 HARRY S. PARSONS, M.D., D.M.D., *Instructor in Operative Dentistry.*
 THOMAS B. HAYDEN, D.M.D., *Instructor in Operative Dentistry.*
 JAMES A. FURFEY, D.M.D., *Clinical Instructor in Operative Dentistry.*
 ASHER H. ST.C. CHASE, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES E. PARKHURST, D.M.D., *Instructor in Operative Dentistry.*
 HENRY C. SPENCER, D.M.D., *Assistant in Operative Dentistry.*
 CLARENCE B. VAUGHAN, D.M.D., *Instructor in Operative Dentistry.*
 JOHN T. TIMLIN, D.M.D., *Instructor in Operative Dentistry.*
 ERNEST E. CARLE, D.M.D., *Instructor in Operative Dentistry.*
 ARTHUR A. LIBBY, D.M.D., *Instructor in Operative Dentistry.*
 DAVID F. SPINNEY, D.M.D., *Instructor in Operative Dentistry.*
 LESLIE H. NAYLOR, D.M.D., *Instructor in Operative Dentistry.*
 ARTHUR V. ROGERS, D.M.D., *Instructor in Operative Dentistry.*
 SAMUEL T. ELLIOTT, D.M.D., *Clinical Instructor in Operative Dentistry.*
 WALTER A. DAVIS, D.M.D., *Instructor in Operative Dentistry.*
 JAMES A. HEAP, D.D.S., *Instructor in Operative Dentistry.*

CHARLES G. PIKE, D.M.D., *Instructor in Operative Dentistry.*
 FRANK R. McCULLAGH, D.M.D., *Instructor in Operative Dentistry.*
 MARTIN B. DILL, D.M.D., *Assistant Professor of Operative Dentistry.*
 HENRY GILMAN, D.M.D., *Instructor in Operative Dentistry.*
 FRANK P. SIMPSON, D.M.D., *Instructor in Operative Dentistry.*
 NATHAN A. ESTES, D.M.D., *Instructor in Operative Dentistry.*
 LEON J. LAWTON, D.M.D., *Instructor in Operative Dentistry.*
 BENJAMIN TISHLER, D.M.D., *Instructor in Operative Dentistry.*
 EUGENE B. WYMAN, D.M.D., *Instructor in Operative Dentistry.*
 HORATIO LES. ANDREWS, D.M.D., *Instructor in Operative Dentistry.*
 W. VERNON RYDER, D.M.D., *Instructor in Operative Dentistry.*
 ARTHUR S. CROWLEY, D.M.D., *Instructor in Operative Dentistry.*
 ERNEST V. L. WHITCHURCH, D.M.D., *Instructor in Operative Dentistry.*
 ROGER B. TAFT, D.M.D., *Instructor in Operative Dentistry.*
 CHARLES S. EMERSON, D.M.D., *Instructor in Operative Dentistry.*
 HERMAN E. HICHBORN, D.M.D., *Instructor in Operative Dentistry.*
 STERLING N. LOVELAND, D.M.D., *Instructor in Operative Dentistry.*
 HARRISON L. PARKER, D.M.D., *Instructor in Operative Dentistry.*
 HAROLD I. FISKE, D.M.D., *Instructor in Operative Dentistry.*
 JUDSON S. MCGREGOR, D.M.D., *Assistant in Operative Dentistry.*
 RALPH B. EDSON, D.M.D., *Instructor in Operative Dentistry.*
 FRANK H. CUSHMAN, D.M.D., *Instructor in Operative Dentistry.*
 HAROLD L. PEACOCK, D.M.D., *Assistant in Operative Dentistry.*
 ELLMORE L. WALLACE, D.M.D., *Instructor in Operative Dentistry.*
 FRANCIS P. DEVLIN, D.M.D., *Assistant in Operative Dentistry.*
 EDWARD C. HOEY, D.M.D., *Assistant in Operative Dentistry.*
 JOHN W. COOKE, D.M.D., *Assistant in Operative Dentistry.*

The instruction in this department is systematically distributed over the course. The lectures deal first with the elemental principles of operative dentistry and then with the application of these principles to the simpler forms of operative work. The student is first required to perform a variety of operations on the Odontotype. Thus familiarity with instruments, and ability in their use is developed. When a student has acquired operative ability by work upon the model, he is given patients. Upon these patients he performs at first the simpler operations, then the more difficult ones and, in his senior year, all of the accredited operations belonging to the practice of Dentistry.

In the senior year lectures are given on the Theory and Practice of Dentistry; the Conduct of Practice and Jurisprudence; the Relations of Dental and Medical Diseases, such as

Diseases of the nose, throat, and sinuses.

The neuralgias associated with the fifth nerve.

The various forms of arthritis, and treatment.

A specialist's study of cardiac, pleural, and renal diseases and their relation to focal infections.

Methods of coöperation with Public Health Departments in the Work on Oral Hygiene.

Clinical Lectures on Operative Dentistry.—These exercises are intended to demonstrate the individual methods of the lecturers. They include brief lectures, the exhibition of models, and practical operations upon patients. During the last half of the senior year lectures are given on the conduct of Practice and Jurisprudence.

Text-books.—Black, Operative Dentistry. American Text-Book of Operative Dentistry. American System of Dentistry. Marshall, Oral Surgery. Marshall, Operative Dentistry. Johnson, Text-Book of Operative Dentistry. Hewitt, Anaesthetics and Their Administration. Thoma, Oral Anaesthesia.

Lectures.	Professor POTTER.	<i>Once a week throughout the year.</i>	30
	Assistant Professor WRIGHT.	<i>Once a week for fifteen weeks.</i>	15
	Assistant Professor DILL.	<i>Once a week throughout the year.</i>	30

Practical work. Drs. ABBOT, EDDY, BRIGHAM, PERRIN, BLAISDELL, WOOD, CODMAN, TAYLOR, PAUL, C. E. B. CHASE, HAYDEN, PARSONS, FURFEY, A. H. ST. C. CHASE, PARKHURST, SPENCER, TIMLIN, CARLE, LIBBY, SPINNEY, NAYLOR, ROGERS, ELLIOTT, DAVIS, HEAP, PIKE, McCULLAGH, ESTES, GILMAN, SIMPSON, LAWTON, TISHLER, WYMAN, ANDREWS, RYDER, CROWLEY, WHITCHURCH, EMERSON, TAFT, HICHBORN, LOVELAND, EDSON, PARKER, FISKE, MCGREGOR, CUSHMAN, PEACOCK, WALLACE, DEVLIN, HOEY, COOKE.

Massachusetts General Hospital, Out-Patient Department.—Surgical Clinic. Drs. MINER, RING, BLUMENTHAL, and KIMBALL. *Monday, Wednesday, and Friday, throughout the year.* Sections for clinical studies at the Nose and Throat Department. Dr. WRIGHT. *Wednesday.*

ROOT CANAL TECHNIQUE

Special attention is given to root canal technique. Three instructors who have full charge of the treatment of devitalized teeth attend each day. Radiographs are taken before and after the treatment of each case, and in all cases where it is necessary, one is taken during the treatment.

WILLIAM D. SQUAREBRIGS, D.M.D., *Instructor in Anaesthesia.*

EDWARD P. WHITE, D.M.D., *Instructor in Anaesthesia.*

CHARLES A. JAMESON, D.M.D., *Instructor in Anaesthesia.*

SAMUEL L. D. RANDALL, D.M.D., *Assistant in Anaesthesia.*
 WALTER F. PROVAN, D.M.D., *Instructor in Anaesthesia.*
 W. IRVING ASHLAND, D.M.D., *Instructor in Anaesthesia.*
 STUART H. VAUGHAN, D.M.D., *Instructor in Anaesthesia.*
 RALPH C. CURTIS, D.M.D., *Instructor in Anaesthesia.*
 HARVEY E. KIMBALL, D.M.D., *Assistant in Anaesthesia.*
 ALLAN M. JOHNSON, D.M.D., *Assistant in Anaesthesia.*
 WILLIAM J. KENEFICK, D.M.D., *Assistant in Anaesthesia.*
 WILLIAM H. SHERBURNE, D.M.D., *Assistant in Anaesthesia.*
 PAUL B. LEBARON, D.M.D., *Assistant in Anaesthesia.*
 JOSEPH W. NEVINS, D.M.D., *Assistant in Anaesthesia.*

PROPHYLAXIS AND PYORRHOEA ALVEOLARIS

NED A. STANLEY, D.M.D., *Instructor in Operative Dentistry.*
 CLARENCE B. VAUGHAN, D.M.D., *Instructor in Operative Dentistry.*

Pyorrhoea Alveolaris receives special attention. The etiology of the disease and its systemic treatment are considered in the lectures, and an operative course in instrumentation is given to the class in sections. Clinics. *Three hours each week throughout the year.* 96

X-RAY DEPARTMENT. — DWIGHT M. CLAPP FOUNDATION

EARLE C. CUMMINGS, D.M.D., *Instructor in Roentgenology.*

A course of twelve or more lectures on Roentgenology supplemented by clinical demonstrations.

It is aimed to touch briefly upon the subject in general, while giving special attention to the use of the X-ray in Dentistry. The interpretation of Dental radiographs is taken up in detail, and the value of the X-ray as a diagnostic agent is dwelt upon and illustrated with practical cases.

Collateral Reading. — Journal of American Roentgen-Society. Kassabau's Electro-Therapeutic and Roentgen Rays. Raper's Dental Radiography.

Lectures. DR. CUMMINGS. *Once a week for sixteen weeks.*

EXTRACTION AND ANAESTHESIA

WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*
 EDWIN L. FARRINGTON, D.M.D., *Instructor in Extracting and Anaesthesia.*
 OLIVER P. WOLFE, D.M.D., *Instructor in Extracting and Anaesthesia.*
 JOSEPH A. RING, D.M.D., *Instructor in Extracting and Anaesthesia.*
 WILLIAM G. JEWETT, D.M.D., *Instructor in Extracting and Anaesthesia.*

J. MARK SMITH, D.M.D., *Instructor in Extracting and Anaesthesia.*
 FRANK H. LESLIE, D.M.D., *Instructor in Extracting and Anaesthesia.*
 JOHN H. JAFFAR, D.M.D., *Assistant in Extracting and Anaesthesia.*

The subject of extraction is treated in the lectures upon operative dentistry by Professor POTTER. This treatment deals first with the anatomy of the roots and the root sockets and then the lines of least resistance along which teeth should be removed from their sockets. The technique of tooth extraction is explained and illustrated upon models.

Anaesthesia as induced by nitrous oxide, nitrous oxide and oxygen, ether and somnoforme is described in lectures which deal with symptoms produced and technique of administration.

Local anaesthesia by the injection of novocaine according to the most approved methods is taught.

Practical instruction in extracting and anaesthesia is available to students every day in the year with the exception of Sundays and holidays. Special attention is given to continuous anaesthesia by the use of nitrous oxide and oxygen, and students have ample opportunity to become familiar with operations under this system.

Extracting Clinics. Professor POTTER, Drs. WOLFE, FARRINGTON, RING, JEWETT, J. MARK SMITH, LESLIE, and JAFFAR. *Two hours a day, throughout the year.* 480

Clinical Demonstrations of Nitrous Oxide and Oxygen Anaesthesia. Professor POTTER. *Once a week throughout the year.* 64

Course in Physical Diagnosis. The course includes examinations by the methods of inspection, percussion, and auscultation of the patients, supplemented by an examination of the blood pressure. It enables the student to distinguish such cases of the heart as would be unsafe to subject to the shock of surgical procedures or anaesthetics.

PROSTHETIC DENTISTRY

FRED A. BECKFORD, D.M.D., *Assistant Professor Prosthetic Dentistry.*
 CHARLES W. BERRY, D.M.D., *Assistant in Prosthetic Dentistry.*
 WILSON C. DORT, D.M.D., *Instructor in Prosthetic Dentistry.*
 HARRY S. CLARK, D.M.D., *Instructor in Prosthetic Dentistry.*
 UBERT C. RUSSELL, D.M.D., *Instructor in Prosthetic Dentistry.*
 FREDERICK J. SULLIVAN, D.M.D., *Instructor in Prosthetic Dentistry.*
 THOMAS J. GIBLIN, D.M.D., *Instructor in Prosthetic Dentistry.*
 GEORGE F. MARSH, D.M.D., *Instructor in Prosthetic Dentistry.*
 CHARLES W. GOETZ, D.M.D., *Instructor in Prosthetic Dentistry.*
 WALTER E. YOUNG, D.M.D., *Assistant in Prosthetic Dentistry.*

ARTHUR L. CAVANAGH, D.M.D., *Instructor in Prosthetic Dentistry.*
 WALTER H. CHAMBERS, D.M.D., *Instructor in Prosthetic Dentistry.*
 EDWARD A. MAHONEY, D.M.D., *Instructor in Prosthetic Dentistry.*
 SIMON DE S. MCCARTY, D.M.D., *Instructor in Prosthetic Dentistry.*
 CHARLES R. WILLIAMS, D.M.D., *Instructor in Prosthetic Dentistry.*
 FRED F. SPROAT, D.M.D., *Instructor in Prosthetic Dentistry.*
 EDMUND J. BOLAN, D.M.D., *Assistant in Prosthetic Dentistry.*
 LOUIS R. BRANCHAUD, D.M.D., *Assistant in Prosthetic Dentistry.*
 RICHARD B. SMITH, D.M.D., *Assistant in Prosthetic Dentistry.*
 ROBERT G. RAE, D.M.D., *Assistant in Prosthetic Dentistry.*
 HAROLD E. TINGLEY, D.M.D., *Assistant in Prosthetic Dentistry.*
 GLENN W. LAWRENCE, D.M.D., *Assistant in Prosthetic Dentistry.*
 BENJAMIN D. WOLMAN, D.M.D., *Assistant in Prosthetic Dentistry.*
 OSWALD F. BANKS, D.M.D., *Assistant in Prosthetic Dentistry.*
 LEON E. DULAC, D.M.D., *Assistant in Prosthetic Dentistry.*
 ARTHUR W. HICKS, D.M.D., *Assistant in Prosthetic Dentistry.*

Lectures and demonstrations to the classes in sections, followed by practical work in the laboratory: the manner in which mineral teeth are constructed, the principles and method of carving and furnace-work, and all compounds used for artificial teeth; and the manner in which gold and silver plates are prepared and adapted to the mouth; the use of rubber and other articles as bases. It is the aim to teach not only the mere mechanical processes of Dentistry, but that combination of art with mechanism which enables the practitioner to effect so much in restoring the symmetry of the face and usefulness of the teeth, where they have been lost or impaired by accident or disease.

Lectures. DR. BECKFORD. *Once a week.*

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Practical work. Drs. BECKFORD, BERRY, DORT, CLARK, RUSSELL, SULLIVAN, GIBLIN, MARSH, GOETZ, YOUNG, CAVANAGH, CHAMBERS, MAHONEY, MCCARTY, WILLIAMS, SPROAT, BOLAN, BRANCHAUD, R. B. SMITH, RAE, TINGLEY, BANKS, DULAC, HICKS, LAWRENCE, and WOLMAN.

CROWN AND BRIDGE WORK

JULIUS F. HOVESTAD, D.M.D., *Demonstrator on Crown and Bridge Work.*

MAURICE E. PETERS, D.M.D., *Instructor in Crown and Bridge Work.*
 FRED W. ALLEN, D.M.D., *Instructor in Crown and Bridge Work.*
 JUDSON C. SLACK, D.M.D., *Instructor in Crown and Bridge Work.*
 HAROLD J. CUTLER, D.M.D., *Assistant in Crown and Bridge Work.*
 HOMER C. SOWLES, D.M.D., *Assistant in Crown and Bridge Work.*

GEORGE A. STAPLES, D.M.D., *Assistant in Crown and Bridge Work.*
 STANTON L. BURGESS, D.M.D., *Assistant in Crown and Bridge Work.*
 HERMON A. SHOHEI, D.M.D., *Assistant in Crown and Bridge Work.*
 PAUL W. CROUCH, D.M.D., *Assistant in Crown and Bridge Work.*

Lectures and Demonstrations. Drs. J. F. HOVESTAD and PETERS.

Once a week throughout the year.

30

Practical Work. Drs. PETERS, ALLEN, CUTLER, SOWLES, SLACK, STAPLES,
 BURGESS, SHOHEI, and CROUCH. *Three hours each week.*

90

Text-books. — Wilson, Dental Prosthesis. Richardson, Mechanical Dentistry. Turner's Prosthetic Dentistry. Kingsley, Oral Deformities. Hovestadt, Principles of Technique in Crowns and Bridges. Harris, Principles and Practice. Harris, Dictionary of Dentistry. Evans, Crown and Bridge Work. Goslee, Principles and Practice of Crowning Teeth.

ORTHODONTIA

LAWRENCE W. BAKER, D.M.D., *Assistant Professor of Orthodontia.*
 ALFRED P. ROGERS, D.D.S., *Assistant Professor of Orthodontic Research.*
 HORACE L. HOWE, D.M.D., *Instructor in Orthodontia.*
 HUGH K. HATFIELD, D.M.D., *Instructor in Orthodontia.*
 RALPH E. GOVE, D.M.D., *Instructor in Orthodontia.*
 FRED R. BLUMENTHAL, D.M.D., *Assistant in Orthodontia.*

Orthodontia is taught by lectures and by practical work in the Infirmary. During the second half of the second year there are lectures and demonstrations and the students are made familiar with the principles of normal occlusion and the various apparatus for the correction of irregularities. In the third year the diagnosis and treatment of the various forms of malocclusions and the etiology are taught by lectures and recitations. Each senior student is obliged to take not less than two cases of irregularities and carry them to completion under the direction of the professor in charge and his associates. On Tuesday and Friday afternoons conferences are held on the cases under treatment.

Text-books. — Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillae. Farrar, Irregularities of the Teeth. Talbot, Irregularities. Guilford, Orthodontia. Case, Dental Orthopedia.

Lectures. Asst. Professor BAKER. *Bi-weekly throughout the year.*

Lectures and Clinics. Asst. Professor ROGERS.

Clinics. Drs. BAKER, HOWE, HATFIELD, GOVE, and BLUMENTHAL. *Seven hours a week throughout October and November. Four hours a week throughout balance of year.*

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INLAY WORK

AMOS I. HADLEY, D.M.D., *Instructor in Inlay Work.*

ARTHUR J. OLDHAM, D.M.D., *Instructor in Inlay Work.*

NORMAN B. NESBETT, D.M.D., *Instructor in Inlay Work.*

CHARLES T. WARNER, D.M.D., *Instructor in Inlay Work.*

Demonstrations in gold and porcelain inlay work in the prosthetic laboratory and infirmary.

Text-books.—Byram, Principles and Practice of Filling Teeth with Porcelain. Bruck, The Filling of Teeth with Porcelain. Peck, Porcelain Inlays.

Clinics. Drs. HADLEY and NESBETT. *Three hours a week throughout the year.* 96

SYPHILOLOGY

C. MORTON SMITH, M.D., *Assistant Professor of Syphilology.*

The course consists of lectures and clinical instruction given in the Dermatological Clinic of the Boston Dispensary where there is a very large proportion of syphilitics. Each student is given ample opportunity to see all of the common and many of the rarer manifestations of syphilis in the mouth and throat, as well as non-syphilitic conditions that may be misleading.

Other manifestations of the disease are shown when of practical value or interest to the students.

Lectures and Clinical Instruction. Throughout the first half of the year.

SURGERY, SURGICAL PATHOLOGY, AND ORAL SURGERY

GEORGE H. MONKS, M.D., M.R.C.S., *Professor of Oral Surgery.*

VARAZTAD H. KAZANJIAN, D.M.D., *Professor of Military Oral Surgery.*

LEROY M. S. MINER, D.M.D., M.D., *Assistant Professor of Oral Surgery.*

FERDINAND BRIGHAM, D.M.D., *Instructor in Oral Surgery.*

CHAUNCEY N. LEWIS, D.M.D., *Instructor in Oral Surgery.*

Lectures embracing the general subjects of inflammation, suppuration, ulceration, gangrene, necrosis, erysipelas, septicemia, pyemia, shock, repair, etc.; and special subjects which more particularly concern Oral Surgery. These lectures will be illustrated, so far as possible, by diagrams, by demonstrations of pathological specimens, and by exhibition of clinical cases at the Boston City Hospital and by weekly clinics in the Surgical Department at the Dental School. Instruction will be given in the use of anaesthetics.

Text-books. — Da Costa's Modern Surgery. Brewer's Surgery. Warren, Surgical Pathology.

Lectures. Professor MONKS. *Once a week for twenty-four weeks.* 24

Clinics. Professor MONKS, Asst. Professor MINER, and Dr. BRIGHAM.
Once a week, throughout the year. 96

Clinics. Asst. Professor MINER and Dr. BRIGHAM. *Once a week, throughout the year.* 64

Clinics. *Once a week, for two months, at the Boston City Hospital.* 8 or 9

OPERATIVE SURGERY

Operations are performed before students one day each week throughout the year in the Amphitheatres at the Massachusetts General Hospital and the Boston City Hospital.

ORAL HYGIENE

WILLIAM P. COOKE, D.M.D., *Professor of Preventive Dentistry and Oral Hygiene.*

CHARLES E. STEVENS, D.M.D., *Instructor in Oral Hygiene.*

E. MELVILLE QUINBY, D.M.D., *Instructor in Oral Hygiene.*

DENTAL PATHOLOGY

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

In the beginning of the course of lectures the general principles of Pathology, including Etiology, Nosology, Semeiology, Diagnosis, and Prognosis, are outlined. The various pathological conditions in their relations to one another and their modifications of structure and function are taught. This prepares the way for the special pathology of the region with which the dentist has most to do. The diseases of the dental and contiguous tissues are considered in detail, with reference to their nature, causes, manifestations and terminations, and their relations with systemic conditions. The lectures will be supplemented with clinical demonstrations of pathological conditions.

Text-books. — Burchard, Inglis, Dental Pathology and Therapeutics. Miller, Micro-organisms of the Human Mouth.

Collateral Reading. — Barrett, Oral Pathology and Practice. McFarland, Text-book of Pathology. Warren, Surgical Pathology and Therapeutics.

Lectures. Professor BRACKETT. *Once a week for sixteen weeks.* 16

MATERIA MEDICA AND PHARMACOLOGY

J. WILLIAM O'CONNELL, D.M.D., *Lecturer on Materia Medica and Therapeutics.*

The course includes the study of drugs used in medicine; their sources, physical and chemical properties, constituents, preparations and doses.

Pharmacology, the science dealing with the action of drugs upon the tissues, organs, and functions of the body, is given special attention. At frequent intervals demonstrations on animals will be given, showing the pharmacologic action of the more important drugs.

Sufficient Therapeutics is taught to give students an intelligent idea of the use of drugs, and their application in pathological conditions.

Toxicology, the study of poisons, their antidotes and antagonists, also the treatment in cases of poisoning, receive careful attention.

Prescription writing and the incompatibility of drugs are duly considered.

Quizzes are held frequently throughout the year.

Text-books. — Potter, *Materia Medica, Pharmacy, and Therapeutics.* Wood, *Therapeutics, Materia Medica, and Toxicology.* Butler, *Materia Medica, Pharmacology, and Therapeutics.* Prinz, *Materia Medica and Therapeutics.* Buckley, *Materia Medica and Therapeutics.*

Collateral Reading. — Hare, *Practical Therapeutics.* Thompson, *Dietetics.*

Materia Medica. Lectures. Dr. O'CONNELL. *Once a week for fifteen weeks during the third year.* 15

Therapeutics. Lectures. Dr. O'CONNELL. *Once a week for ten weeks during the third year.* 10

NEUROLOGY

EDWARD W. TAYLOR, M.D., *Professor of Neurology.*

A course of four lectures on Neurology will include a brief review of the anatomy and physiology of the nervous system, the anatomy of the trifacial nerve being made the subject of special study.

The nervous disturbances liable to be set up by dental irritation, and, conversely, those likely to produce odontalgia, will be considered as fully as the limited nature of the course permits, special attention being paid to trifacial neuralgia. The relation of certain functional disorders to the work of the dentist will also be considered.

Lectures. Professor TAYLOR. *Once a week for four weeks.* 4

CLINICAL ADVANTAGES

The Dental School is established in Boston in order to secure those advantages for Clinical Instruction which are found only in large cities.

The clinics of the Dental Hospital afford a sufficient number of patients to give each student abundant practice in all branches of Dentistry.

Each student is assigned a chair in the Operative Infirmary and is required to operate three hours a day, five days each week, giving him during each year 480 hours of practice.

Each student is assigned a bench in the Prosthetic Laboratory and is required to work at the bench or in the Prosthetic Infirmary three hours a day for six days each week, giving him 576 hours of practice each year.

The Massachusetts General Hospital. — During the past year, six thousand two hundred and fifty-one patients were treated in the wards, five thousand four hundred and twenty-four cases were treated in the accident ward, and there were one hundred forty-seven thousand four hundred and twenty-eight visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, or demonstrated in the amphitheatres. Operations are numerous, and are performed in the amphitheatre. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, Children's Diseases, Orthopedics, Diseases of the Genito-Urinary System, and Syphilology.

The Boston City Hospital. — During the past year, eighteen thousand and seventy-seven cases were treated in its wards, and there were two hundred and eight thousand one hundred and ninety-seven visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, forty-nine thousand street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In this hospital, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching over four thousand nine hundred a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Dispensary.—About one hundred and ten thousand visits were made by out-patients at this charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Massachusetts Charitable Eye and Ear Infirmary.—Over sixty-one thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

LIBRARIES AND MUSEUMS

The College Library at Cambridge is open to students, and also the Library of the Boston Medical Library Association, which has a dental section containing a large and very complete collection of dental literature. It includes the libraries of the American Academy of Dental Science and the Massachusetts Dental Society. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily, except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August.

The Dental School Library for reference only also contains about 2,991 well selected volumes to which the students and graduates of the School have free access.

The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this Library.

The Boston Medical Library, No. 8 The Fenway, contains about 84,000 bound volumes and 56,000 pamphlets, and nearly 650 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

The Dental Museum is in charge of Dr. WALDO ELIAS BOARDMAN, *Curator*. It contains about 3000 specimens, and offers unusual facilities for study of the teeth. The pathological anatomy of the teeth is shown by more than 2000 specimens, among which are over 200 dissected teeth showing formations of secondary dentine in the pulp cavity, and also

many other rare specimens of great value. There are 700 other specimens of human and comparative anatomy, illustrating a wide range of knowledge.

FELLOWSHIPS AND SCHOLARSHIPS

THE **FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS**; the University received in 1909 the sum of three hundred and forty-six thousand four hundred and fifty-eight dollars and seventy cents from the residuary bequest of Mrs. AMEY RICHMOND SHELDON, and in 1910 the further sum of eight thousand seven hundred and fifty dollars from the same bequest, to establish, in memory of Mrs. Sheldon's husband, a member of the Class of 1842, the **FREDERICK SHELDON FUND**, "the income thereof to be applied in the discretion of and under rules to be prescribed by the President and Fellows . . . to the further education of students of promise and standing in the University by providing them with facilities for further education by travel after graduation or by establishing travelling scholarships." The income of this fund is at present about fifteen thousand dollars.

By a vote of the President and Fellows, a Committee of seven persons has been appointed to administer the Frederick Sheldon Fund for travelling scholarships. The income is not to be assigned in scholarships of fixed amounts, but "on recommendation to the Committee from the various Departments and Schools, to be assigned as the Committee shall deem most expedient for purposes of investigation or study either in this country—outside Harvard University—or abroad."

The Committee consists of the Deans of the Faculty of Arts and Sciences, the Graduate School of Arts and Sciences, the Graduate School of Business Administration, the Divinity School, the Law School, the Medical School, and the Bussey Institution.

Application in behalf of a student in any School, Division, or Department of the University must be made through the Dean or Chairman of that School, Division, or Department, to the Chairman of the Committee, Dean L. B. R. BRIGGS, and may be made at any time.

THE **CHARLES ELLIOTT PERKINS SCHOLARSHIPS**; three undergraduate scholarships and one graduate scholarship, with an income of three hundred dollars each. In 1909, thirty thousand dollars was received from Mrs. CHARLES ELLIOTT PERKINS, of Burlington, Iowa, "in trust for the establishment of scholarships in Harvard University for students from Iowa, the scholarships to be forever known and designated as the 'Charles Elliott Perkins Scholarships.'

". . . . It is my desire that the benefits of this foundation shall be open to those desiring a so-called classical or liberal education, and to

those desiring to fit themselves for the professions; and especially that young men who intend to pursue technical studies in preparation for a career in business or engineering may be encouraged by these scholarships to precede their technical studies, or combine them, with such liberal studies as shall contribute to their breadth of view, sympathy with all humane interests, and capacity for ultimate leadership. In fulfilment of the purpose above described, I desire the income of the fund to be divided among four or more scholarships, in accordance with the following terms:—

“I. One undergraduate scholarship of at least \$300, to be offered annually, upon his graduation from an Iowa high school, to a *bona fide* resident of that part of the State of Iowa which is now served by the Chicago, Burlington & Quincy Railway system.

“II. Two undergraduate scholarships of \$300 each, to be offered annually to students from Iowa high schools. . . .

“III. One graduate scholarship of \$300, to be offered each year to a graduate of an Iowa college or university in any of the graduate or professional departments of Harvard University.

THE JOSEPH EVELETH SCHOLARSHIP; with an income of \$225, founded by Joseph Eveleth of Boston and Watertown, Sheriff of Suffolk County from 1840 to 1855, except in 1853.

THE PRINCETON FELLOWSHIP; with a stipend of four hundred and fifty dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

The Director of Scholarships will aid deserving students in obtaining work. Certain loan funds not enumerated above are at his disposal. Students requiring aid should visit the Director as soon as possible to discuss with him their financial needs. The Director will also act in advisory capacity with the students in any matters not intimately associated with the curriculum.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Director of Scholarships.

DENTAL RESEARCH

PERCY R. HOWE, D.D.S., *Assistant Professor of Dental Research.*

Lectures and conferences throughout the third year.

THE HARRIET NEWELL LOWELL SOCIETY FOR DENTAL RESEARCH

IN 1907, Miss HARRIET NEWELL LOWELL bequeathed to the Harvard Dental School a sum of money, the interest to be applied each year to dental research. In addition to the appointment of a special research worker and a research committee of four men, the Administrative Board formed the Harriet Newell Lowell Society for Dental Research. The object of the Society is to interest the students in research. Its president and a majority of its executive committee are students, and meetings are held in the School building. A well-equipped research laboratory is open for the use of the students and teachers who are interested in scientific investigation.

TEUNIS OCKERSE, *President.*

JOHN R. WALLACE, *Vice President.*

LAWRENCE W. BAKER, D.M.D., Assistant Professor of Orthodontia,
Treasurer.

ALFRED L. JOHNSTON, *Student Treasurer.*

H. CARLTON SMITH, Ph.G., Lecturer on Dental Chemistry, *Secretary.*

PIERRE O. BONIN, *Student Secretary.*

RESEARCH COMMITTEE. — Percy R. Howe, D.D.S., H. Carlton Smith, Ph.G., Lawrence W. Baker, D.M.D., Kurt H. Thoma, D.M.D., Leroy M. S. Miner, D.M.D., M.D., *Chairman.*

WARREN ANATOMICAL MUSEUM IN THE MEDICAL SCHOOL

The Warren Anatomical Museum was founded in 1847 by JOHN COLLINS WARREN, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to JOHN WARREN, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curator is Dr. WILLIAM FISKE WHITNEY.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy and materia medica. These are placed in the hands of the student at any time during the day, upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosive preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

EXAMINATIONS

The final examination in every required subject is held at the close either of the first or of the second term of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The examination in certain studies of the first year is held at *mid-year* only, and is for those who are members of the School at the time, and for those entitled to apply for the degree, provided they have failed previously in those subjects. The *June examination* is only for those who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for conditioned students or for applicants for advanced standing. In some branches a portion of the examination consists of practical work in the laboratory.

The amount of time credited to each examination is as follows :—

First Year.—Biology (3 hrs.), Anatomy (3 hrs.), Histology and Embryology (3 hrs.), Chemistry (3 hrs.), General Pathology (3 hrs.).

Second Year.—Physiology* (3 hrs.), Oral Anatomy and Histology (2 hrs.), Operative Dentistry (2 hrs.), Bacteriology* (1 hr.), Chemistry (2 hrs.), Prosthetic Dentistry (2 hrs.).

Third Year.—Operative Dentistry (2 hrs.), Dental Pathology, Materia Medica, Radiography, Therapeutics (2 hrs.), Prosthetic Dentistry (2 hrs.), Crown and Bridge Work (2 hrs.).

Fourth Year.—Crown and Bridge Work, Operative Dentistry, Prosthetic Dentistry, Orthodontia, Surgical Pathology, and Surgery.

In addition to the above examinations each student is required :—

To dissect three parts of the body to the satisfaction of the Demonstrators ;

To satisfactorily complete the required specimens of Prosthetic Dentistry ;
To demonstrate his ability to meet satisfactorily the practical requirements in Operative and Prosthetic Dentistry ;

To successfully carry on the treatment of at least two cases of irregularities of the teeth.

* The examinations in these subjects are held at the end of the first half-year.

No student may advance with his class until he has passed a satisfactory examination in a majority of the studies already pursued.

No student is admitted to the third-year class in practical Operative and Prosthetic Dentistry until he has shown reasonable proficiency in the work of the second year.

No student may enter the second-year class until he has passed all the required examinations for entrance to the School.

Students who fail in any subject may present themselves in that subject again at the next regular examination. After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

REQUIREMENTS FOR THE DEGREE

In or before June, 1920

The degree of DOCTOR OF DENTAL MEDICINE (*Dentariae Medicinae Doctoris*) may be conferred upon any candidate of adult age, and of good moral character, who has passed *all the required examinations*. He must also give evidence of having studied Medicine or Dentistry in some recognized school four full years, the last continuous year of which must have been spent at this School.

The degree of Doctor of Dental Medicine *cum laude* will be given to candidates who have pursued a complete four years' course in this School and obtained not less than eighty per cent in Practical Operative and Prosthetic Dentistry and an average of eighty per cent or over in all other required examinations.

The course is a graded one of four continuous years. *Graduates* from other reputable Dental Schools whose Course of Instruction consists of four years of nine months each may obtain the degree of Doctor of Dental Medicine by spending one year in the School and passing the required examinations.

The right to take the examinations, as well as the privilege of continuing membership in the School, is conditioned upon regular attendance upon lectures, infirmary practice, and laboratory exercises.

Candidates for the degree are obliged to apply for the same in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

INSTRUMENTS

With the exception of extracting instruments, lathes, and vulcanizers, blow-pipes and articulators, each student will be required to furnish his own instruments, and appliances for both laboratory and operating room.

At the beginning of the second year a complete list of instruments required for use in both the Operative and Prosthetic Departments is furnished by the School, and each student is required to provide himself with the instruments enumerated upon the lists before beginning his work. The cost of these instruments, including the dental engine, is about one hundred and fifty dollars.

FEES AND EXPENSES

There are no fees for matriculation, for the diploma, nor for the demonstrators. For the ~~first~~^{each} year of a student's membership in the School, the tuition fee is *two hundred dollars*, in two payments of *one hundred and twenty dollars* and *eighty dollars*; for a half-year only, *one hundred and twenty dollars*; ~~for the second, third, and fourth years, one hundred and fifty dollars each, in two payments of ninety dollars and sixty dollars~~; and for any subsequent year, *fifty dollars*. 100

During the first year there are the following additional expenses: Two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; ten dollars for biological material; five dollars for prosthetic laboratory material; and twenty dollars for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, five dollars for dental laboratory material, and thirty-five dollars for Chemistry and Biology. In the second year there is a fee of ten dollars for Chemistry, ~~three~~ dollars for Physiology, ~~three~~ dollars for Bacteriology, three dollars for Oral Anatomy, and ~~five~~^{ten} dollars for dental laboratory materials, and in the third and fourth years a fee of ten dollars for laboratory materials. During the second, third, and fourth years a deposit of ten dollars is required to cover any loss or breakage of appliances in the infirmary and prosthetic laboratory. The balances of these deposits are returnable at the end of the year on application to the Bursar.

A deposit of two dollars with the Dean of the Medical School will entitle a student to the use of a locker in the Medical School buildings during the first year.

* The Bursar's office is at The Delta, Kirkland Street, Cambridge. Hours 9-1.

A student who wishes to rent a microscope of the School can do so upon payment of four to six dollars a half-year.

Special students, admitted at the discretion of the Dean to the courses in Operative and Prosthetic Dentistry for the whole or any portion of the academic year, pay a fee of *fifty dollars* for each course.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places, at various prices, can be obtained at the rooms of the Young Men's Christian Association, 316 Huntington Ave., Boston.

Students' expenses may also be reduced by occupying rooms in the College dormitories in Cambridge. Information in regard to College rooms may be obtained after April 6 upon application to the Bursar.

At Memorial Hall, Cambridge, the cost of board is expected not to exceed \$7.00 a week.

At Foxcroft Hall, Cambridge, meals are served a la carte, at a cost which averages about \$5.00 a week. Application should be made early to the Auditor, Foxcroft Hall.

Any student who lives in a College room, or boards at the Dining Associations must file a bond in the sum of *four hundred dollars*; or deposit *four hundred dollars* in money or United States Bonds; or deposit fifty dollars as security, pay his tuition-fees in advance as above, pay in advance the full year's rent of any room that may be assigned to him, and make a deposit with the Bursar as security for the payment of his board. In the case of Memorial Hall the initial deposit for board must be a minimum of eighteen dollars, and a margin of at least ten dollars must be maintained in the Bursar's hands.

STILLMAN INFIRMARY FEE

Not later than October 1 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

PAYMENT OF FEES

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and sixty-nine dollars; in like manner, each second-year student is required to pay one hundred and twenty-six dollars; and each third and fourth-year student, one hundred and ten dollars; each student entering any subsequent year is required to pay, in the same man-

ner, fifty dollars. The remainder of the tuition fee—eighty dollars for the first-year students and sixty dollars for the second, third, and fourth-year students—must be paid to the Bursar on or before January 31. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation of the student from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School. *No degree can be conferred until all dues to the School are discharged.*

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

Students, on joining the School, and at the beginning of each school year, must enter their names with the Dean of the School. They are expected to register on the first day of the academic year, *the Monday preceding the last Wednesday in September.*

STUDENTS

POST-GRADUATE

NAME	HOME RESIDENCE	PRESENT ADDRESS
Betts, Carl Leon, A.B. (<i>Wake Forest Coll.</i>) 1912, D.M.D. (<i>Harvard Univ.</i>) 1919,	Rome, Ga.	208 Aspinwall Ave., B'kline
Feuerham, Frank August, D.M.D. 1917,	Portsmouth, N. H.	3 Pleasant St., Portsmouth, N. H.

FOURTH YEAR

Arnoff, Albert Isadore,	Roxbury,	101 Devon St., Rox.
Aronson, Bernard Herman,	E. Boston,	211 Princeton St., E. Boston
Bresnick, Barnet,	Dorchester,	150 Stanwood St., Dor.
Burkinshaw, Herbert Joseph,	Meriden, Conn.	51 St. Stephen St., Boston
Coe, Walter Ernest, L.D.S. (<i>Royal Coll. of Surgeons, England</i>) 1914,	London, Eng.	555 Huntington Ave., Boston
Copeland, Raymond Norman,	Hyde Park,	38 Davison St., Hyde Park
Cummings, Eugene Raphael,	Fall River,	165 Mt. Auburn St., Cambridge
Danforth, John,	Manchester,	640 Huntington Ave., Boston
Davenport, Raeburn Roundy,	Beverly,	18 Francis St., Rox.
Eriksson, Oskar Felix Laurentius,	Visby, Sweden,	11 Henry St., E. Boston
Ettelson, Michael,	Quincy,	67 Franklin St., Quincy
Gould, Louis,	Somersworth, N. H.	11 Westminster R'd, Rox.
Harris, George Augustus,	Boston,	133 Peterboro St., Boston
Hawkins, Walter Joyce,	Grass Valley, Cal.	70 Francis St., Rox.
Herzog, Hans,	Olten, Switzerland,	706 Huntington Ave., Boston
Hill, Leo John,	So. Lawrence,	86 Bowdoin St., So. Lawrence
Mashihara, Taiji,	Yamaguchi, Japan,	8 Druce St., B'kline
Merser, Herbert Bartlett,	Dorchester,	103 King St., Dor.
Preston, Lovell Hubbard,	New Hampton, N. H.	208 Aspinwall Ave., B'kline
Scott, William Michael, A.B. (<i>Bates Coll.</i>) 1916,	Lewiston, Me.	880 Huntington Ave., Boston
Sheffield, William Cyrenus,	Providence, R. I.	39 Worcester Sq., Boston
Stone, Laurence Husted,	Grand Rapids, Mich.	74 Fenwood R'd, Rox.
Tekmejian, Martin,	Boston,	737 Huntington Ave., Boston
Tellone, Emil Edward,	E. Orange, N. J.	58 Francis St., Rox.
Tierney, Joseph John,	Dorchester,	44 Pearl St., Dor.
Trecartin, Julian Edward,	Lubec, Me.	183 St. Botolph St., Boston

THIRD YEAR

Albert, Archie Arand,	Malden,	22 Grape St., Malden
Aronson, Hyman Arnold,	Boston,	7 Chambers St., Boston
Bonin, Pierre Onesime,	Woonsocket, R. I.	367 Elm St., Woonsocket, R.I.
Buehler, Edgar LeRoy,	New York, N. Y.	86 Francis St., Rox.
Crowe, Charles Peter,	Newark, N. J.	19 Fountain St., Medford
Curry, Floyd Earl,	Hudson Heights, N. J.	706 Huntington Ave., Boston
Davidson, Jacob Abraham,	Roxbury,	242 Magnolia St., Rox.
Davis, Cecil Earls,	Sydney, Australia,	76 Francis St., Rox.
Decker, George Clifford,	Binghamton, N. Y.	
	1173 Commonwealth Ave., Allston	
Drugan, John Edward,	Wakefield,	217 Vernon St., Wakefield
Eaton, Clyde Howard,	Brunswick, Me.	181 St. Botolph St., Boston
Fallon, John Joseph,	Concord,	14 Grant St., Concord
Fein, Solomon Isadore,	Dorchester,	48 Fowler St., Dor.
Fish, Charles Winthrop,	Malden,	501 Highland Ave., Malden
Garvey, Thomas Francis, Jr.	Everett,	37 Linden St., Everett
Gilligan, Francis Joseph,	Newtonville,	11 Broadway, Newtonville
Gitterman, Benjamin Israel,	Moose Jaw, Sask.	
	1377 Commonwealth Ave., Boston	
Gooley, Henry Norman,	Newtonville,	941 Washington St., Newtonville
Harring, Cedric Frasier,	Dorchester,	73 Greenwood St., Dor.
Johnson, Albert,	Portland, Me.	134 Hemenway St., Boston
Johnston, Alfred Lawrence,	Foxcroft, Me.	641 Huntington Ave., Boston
Lauter, Ignatz Joseph,	Brooklyn, N. Y.	36 No. Anderson St., Boston
Levy, Isaac,	Cape Town, So. Africa,	40 Francis St., Rox.
Margolis, Herbert Israel,	Roxbury,	21 Normandy St., Rox.
Ockerse, Teunis,	Pretoria, So. Africa,	76 Francis St., Rox.
O'Hearn, Edward Leo,	Everett,	77 Fremont Ave., Everett
Pepin, William Reid, S.B. (Dart-		
mouth Coll.) 1918,	Lowell,	442 E. Merrimack St., Lowell
Rogers, John Lloyd,	Barre, Vt.	641 Huntington Ave., Boston
Short, Ralph William,	Allston,	27 Glenville Ave., Allston
Smith, Cheever Stanton,	Newton,	626 Centre St., Newton
Sowles, John Wesley,	Barre, Vt.	90 Orchard St., Jam. Pl.
Stone, Arthur Louis,	Cranston, R. I.	145 Kent St., B'kline
Stone, Raymond Hutton,	Dorchester,	237 Centre St., Dor.
Trindall, Nelson Chadwick,	Allston,	85 Adams St., Allston
Van Heerden, Henry Octo,	Middelburg, Transvaal, So. Africa,	
	146 Harvard St., B'kline	
Wagatt, Boyd William,	Bar Harbor, Me.	1173 Commonwealth Ave., Allston

SECOND YEAR

Ahern, Wendell Giles,	<i>Barre, Vt.</i>	70 St. Stephen St., Boston
Baker, Guy Lefavour,	<i>Beverly,</i>	13 Thorndike St., Beverly
Bauchert, John Arthur,	<i>El Paso, Texas,</i>	208 Aspinwall Ave., B'kline
Bishop, Kenneth Long,	<i>No. Attleboro,</i>	14 Grant St., No. Attleboro
Branchaud, Kenneth Edward,	<i>Boston,</i>	484 Brookline Ave., B'kline
Bresnahan, Raymond Francis,	<i>Stoneham,</i>	56 Pine St., Stoneham
Brodsky, Ralph Howard,	<i>New York, N. Y.</i>	702 Huntington Ave., Boston
Carney, Henry Joseph,	<i>Everett,</i>	129 Francis St., Everett
Crowley, Charles William,	<i>Newton Upper Falls,</i>	34 High St., Newton Upper Falls
Danovitch, Lewis Julius,	<i>Canton,</i>	48 Tolman St., Canton
Fine, Samuel,	<i>E. Boston,</i>	285 Princeton St., E. Boston
Finkelstein, George Joseph,	<i>Dorchester,</i>	226 Harvard St., Dor.
Franké, Georges,	<i>Manchester, N. H.</i>	65 Fenwood R'd, B'kline
Freedman, George,	<i>Roxbury,</i>	11 Balfour St., Rox.
Kenney, William Harry,	<i>Cambridge,</i>	85 Belmont St., Cambridge
Koppel, Benjamin William,	<i>Revere,</i>	545 Beach St., Revere
Lane, Donald Fairfield,	<i>Hartford, Conn.</i>	721 Huntington Ave., Boston
Lanouette, Joseph Edouard,	<i>Manchester, N. H.</i>	208 Aspinwall Ave., B'kline
Le Clair, Albert Powell,	<i>Fall River,</i>	34 Kellogg St., Fall River
Lowrey, Nathan Stanley,	<i>Presque Isle, Me.</i>	103 Gainsboro St., Boston
Mann, Wilbur Fay,	<i>Barre, Vt.</i>	70 St. Stephen St., Boston
Martin, Francis James,	<i>Newton Centre,</i>	169 Ward St., Newton Centre
Miskell, Louis,	<i>New Bedford,</i>	208 Aspinwall Ave., B'kline
Moskow, Harry,	<i>Dorchester,</i>	33 Angell St., Dor.
Nesson, Joseph Hyman,	<i>Cambridge,</i>	258 Western Ave., Cambridge
Ostrander, Harry Moses,	<i>Kerhonkson, N. Y.</i>	208 Aspinwall Ave., B'kline
Quint, David,	<i>Dorchester,</i>	148 Stanwood St., Dor.
Ream, William James,	<i>Akron, O.</i>	208 Aspinwall Ave., B'kline
Shannon, Howell Franklin,	<i>Roanoke, Va.</i>	16 Francis St., Rox.
Silverstein, Israel,	<i>Dorchester,</i>	21 Browning Ave., Dor.
Taber, Sydney Alfred,	<i>Atlantic City, N. J.</i>	13 Jackson St., Pawtucket, R.I.
Trevor, Frederick Arthur,	<i>Reading,</i>	1 Middle St., Reading
Van der Bÿl, Albertus Jacobus,	<i>Pretoria, So. Africa,</i>	76 Francis St., Rox.
Van Reenen, Johannes Frederick,	<i>Marquard, O. F. S., So. Africa,</i>	86 Francis St., Rox.
Vaughan, Walter Wright,	<i>Waltham,</i>	77 Dale St., Waltham
Vercueil, Edward Philip Arnold,	<i>Middelburg, Transvaal, So. Africa,</i>	146 Harvard St., B'kline

Wallace, John Raymond,	Woburn,	10 Page Pl., Woburn
Wilkins, George Edward,	Caribou, Me.	47 Worcester St., Boston
Wright, William Joseph,	No. Attleboro,	80 Pleasant St., No. Attleboro

FIRST YEAR

Apgar, Frederick Milton,	<i>Flemington, N. J.</i>	316 Huntington Ave., Boston
Arnaud, Jean Victor Charles Eugene,	<i>Toulon, France,</i>	63 Fenwood R'd, Rox.
Barrett, Louis Gonyon,	<i>Keene, N. H.</i>	89 St. Botolph St., Boston
Bates, Leslie Marriner,	<i>Beachmont,</i>	830 Winthrop Ave., Beachmont
Beal, Sumner Maxwell,	<i>Rockland,</i>	40 Blanchard St., Rockland
Bowers, Lawrence Wetherbee,	<i>Brookline,</i>	22 Atherton R'd, B'kline
Boyle, Paul Edmund,	<i>Medford,</i>	30 Logan Ave., Medford
Brooke, Percy Albert,	<i>Bath, England,</i>	Box 8, Waverley
Butterfield, Percy Rueull,	<i>Winterport, Me.</i>	61 Louis Prang St., Boston
Carroll, Chester David,	<i>Worcester,</i>	233 Aspinwall Ave., B'kline
Christensen, Otto Christian Vilhelm,	<i>Slagelse, Denmark,</i>	706 Huntington Ave., Boston
Clayman, Maurice Jacob,	<i>Waterbury, Conn.</i>	76 Francis St., Rox.
Cohen, David Harold,	<i>Buffalo, N. Y.</i>	702 Huntington Ave., Boston
Crowe, Alfred Borbridge,	<i>Pawtucket, R. I.</i>	40 Francis St., Rox.
Curry, John Edward,	<i>Waltham,</i>	39 Clinton St., Waltham
Dalal, Jehangir Cooverji,	<i>Calicut, Malabar, India,</i>	2 Wigglesworth St., Boston
Davis, Paul Irving,	<i>So. Portland, Me.</i>	134 Hemenway St., Boston
Des Lauriers, Joseph Amable,	<i>Ware,</i>	51 Fenwood R'd, Rox.
Dinneen, William Albert,	<i>North Adams,</i>	51 Fenwood R'd, Rox.
Doherty, Julian Benedict,	<i>Cambridge,</i>	19 Bellevue Ave., Cambridge
Downes, Arthur Vincent,	<i>Providence, R. I.</i>	359 Mass. Ave., Boston
Ecker, William Hersch,	<i>Worcester,</i>	84 Washington St., Worcester
Faass, Elton Vincent,	<i>Utica, N. Y.</i>	43 Mountfort St., Boston
Fager, Valentine Hummel, Jr.	<i>Harrisburg, Pa.</i>	63 Fenwood R'd, Rox.
Fain, Archie Israel,	<i>Westerly, R. I.</i>	84 Walnut St., Rox.
Finkelstein, Leo Samuel,	<i>Waterbury, Conn.</i>	76 Francis St., Rox.
Flagg, Lloyd Eugene,	<i>Buffalo, N. Y.</i>	316 Huntington Ave., Boston
Fraser, Gordon Alexander,	<i>Heidelberg, Transvaal, So. Africa,</i>	86 Francis St., Rox.
Fraser, Oswald Lambert Kelly,	<i>Montreal, Can.</i>	14 Greenwood Sq., Boston
Gibson, Frederick Alexander,	<i>Portsmouth, N. H.</i>	1206 Boylston St., Chestnut Hill
Goldberg, Solomon,	<i>E. Boston,</i>	112 Marion St., E. Boston
Gomperts, Alexander David,	<i>The Hague, Holland,</i>	11 Fenwood R'd, Rox.

Gorsey, Barnet,	<i>Mattapan,</i>	625 Morton St., Mattapan
Haley, Frederick Alchorn,	<i>Arlington,</i>	20 Freeman St., Arlington
Halleran, Thomas Leonard,	<i>Waltham,</i>	157 Summer St., Waltham
Hamilton, Gail Smith,	<i>Richford, Vt.</i>	74 Glenville Ave., Allston
Hamman, Eduard Christiaan,	<i>Carolina, Transvaal, So. Africa.</i>	
		237 Longwood Ave., Boston
Hickey, Albert Ferdinand,	<i>Roxbury,</i>	107 Blue Hill Ave., Rox.
Hoerner, William Strohm,	<i>Harrisburg, Pa.</i>	63 Fenwood R'd, Rox.
Hoornbeek, Jansen Keeler,	<i>Ellenville, N. Y.</i>	43 Mountfort St., Boston
Jordan, William Barnes,	<i>So. Portland, Me.</i>	55 Hemenway St., Boston
Kaden, George,	<i>Newark, N. J.</i>	702 Huntington Ave., Boston
Kassels, Maurice,	<i>Cambridge,</i>	17 Fourth St., Cambridge
King, Maurice Pickard,	<i>Bangor, Me.</i>	36 Peterboro St., Boston
Kline, Emanuel,	<i>Malden,</i>	432 Bryant St., Malden
Levinson, Charles Abraham,	<i>Boston,</i>	36 Allen St., Boston
Lindsay, Fred Murray,	<i>Ansonia, Conn.</i>	78 Francis St., Rox.
Lunan, Augustus Holt,	<i>Southbridge,</i>	25 Bowker St., B'kline
Lynch, Philip Edward,	<i>South Lancaster,</i>	201 High St., B'kline
MacBeth, John Hubert Emmanuel	<i>Morant Bay, Jamaica, B. W. I.</i>	
		231 Northampton St., Boston
Maloney, Arthur Michael,	<i>Hornell, N. Y.</i>	22 Burrough St., Jam. Pl.
Mandell, Israel,	<i>Revere,</i>	43 Thornton St., Revere
Marsh, Brooks Herbert,	<i>Waltham,</i>	7 Banks St., Waltham
Monahan, James Joseph,	<i>Dorchester,</i>	52 Corona St., Dor.
Morse, Roland Elwin,	<i>Madison, Me.</i>	324 Longwood Ave., Boston
Murray, William Judkins,	<i>Madison, Me.</i>	58 Francis St., Rox.
Musnitsky, Arthur Wolf,	<i>Manchester, N. H.</i>	26 Grove St., Chelsea
Nadler, Jacob Ernest,	<i>Worcester,</i>	4 Franconia St., Worcester
Peres, Robert,	<i>Passaic, N. J.</i>	Matthews Hall 18, Cambridge
Pollet, Irving Leon,	<i>Worcester,</i>	164 Longwood Ave., Boston
Pratt, Leon Stanley,	<i>Augusta, Me.</i>	208 Aspinwall Ave., B'kline
Pretorius, Christoffel Johannes,	<i>Delmas, Transvaal, So. Africa,</i>	
		124 Harvard St., B'kline
Pretorius, Hendrik Stephanus,	<i>Delmas, Transvaal, So. Africa,</i>	
		124 Harvard St., B'kline
Richardson, Lloyd Morse,	<i>Rockland, Me.</i>	17 Forest St., Medford
Rowe, Russell,	<i>No. Attleboro,</i>	100 Reservoir St., No. Attleboro
Saks, Leon,	<i>Liverpool, England,</i>	106 Crawford St., Rox.
Scott, Kenneth Earl Warwick,	<i>Warwick, R. I.</i>	568 Columbus Ave., Boston
Seavey, Arthur Jones,	<i>New Braintree,</i>	20 Winslow Ave., W. Somer.
Silverman, Samuel Herman,	<i>New York, N. Y.</i>	164 Longwood Ave., Boston
Sime, Archibald,	<i>W. Somerville,</i>	33 Pearson R'd, W. Somer.

Smith, Lawrence Richard	Brighton,	59 Nottingham R'd, Brighton
Smolar, Hubert,	Cambridge,	303 Elm St., Cambridge
Strock, Moses Solomon,	Dorchester,	62 Glenway St., Dor.
Tisdale, Everett Adams	Medford,	129 George St., Medford
Tradal, Torkel Nicolay,	Kristiania, Norway,	51 Fenwood R'd, Rox.
Van Oostrum, Omius,	Pretoria, Transvaal, So. Africa,	58 Aspinwall Ave., B'kline
Veo, Charles Kenneth,	Newtonville,	76 Otis St., Newtonville
Walsh, William Augustine, A.B.		
(Bates Coll.) 1913,	Lewiston, Me.	89 St. Botolph St., Boston
Young, Arthur Price,	Dorchester,	154 Weller Ave., Dor.

SPECIAL STUDENTS

Menabrito, Alonso,	Campeche Camp, Mexico,	2 Wigglesworth St., Boston
Okazaki, Naoshiro,	Tochigi Ken, Japan,	272 Boylston St., Boston
Tsukamoto, Heiichiro,	Chibaken, Japan,	272 Boylston St., Boston

SUMMARY

POST-GRADUATE STUDENTS	2
FOURTH-YEAR STUDENTS	26
THIRD-YEAR STUDENTS	36
SECOND-YEAR STUDENTS	39
FIRST-YEAR STUDENTS	79
SPECIAL STUDENTS	3
TOTAL	185

OFFICIAL REGISTER OF HARVARD UNIVERSITY

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